State Defense Force Monograph Series

Fall 2009
State Defense Force Monograph Series: Mission Growth of the SDF from the Cold War

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ORGANIZATION

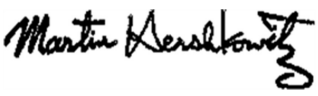
FOREWORD

Under the provisions of 32 USC, § 109 there are 54 political entities that are eligible for an authorized State Defense Force (SDF) unit; there are in fact at this writing only 23 such units across the country. The organization and mission structure of these SDF units vary from the original intent of Light Infantry and Military Police to the more recent direction of professional elements designed to provide backup support for the National Guard (NG) and in the extreme provide direct homeland security support to the state Emergency Management Agency (EMA) when the NG cannot because of a combat, peacekeeping or homeland defense deployment. The extremes of this spectrum are: (a) the state with an authorized SDF actually posted on the Internet, yet that state's NG Command Staff was unaware that there was a SDF unit; and (b) the state whose SDF fully supports its NG and state EMA with medical, engineering, legal, financial and other needed mission related elements.

The articles in this issue of the SDF Monograph Series offer a view of some activities undertaken by SDF units as each moves or plans to move along the path. In one case a design is offered for those still in the Light Infantry or Military Police mission structure to start the move to provide a more complete support effort for the NG; in another case the problems of posttraumatic stress disorder (PTSD) is examined and a need to assist the NG in addressing it is proposed; one SDF unit describes how it developed and applies an engineering element to supplement its NG in a major thrust in the mission redesign effort; an example of the ultimate in mission restructure is provided in a model for conducting both a potential damage assessment for a typical natural disaster and an actual damage assessment following the disaster as a request to support its EMA.

These articles are examples based on the fact that there were individuals willing to take the time and make the effort to prepare them for others to read and learn and explore. This Editor has had the opportunity to speak to many Command and senior personnel in a fair number of SDF units. The fact is that there are a number of examples of movement toward an enhanced mission structure scattered about; however, they remain unreported due to a lack of "authors." In some cases other members of the SDF unit were unaware of these novel activities due to a lack of information sharing.

The SDF Publication Center is designed to present examples of special units across the country in hopes of interesting SDF units to describe their activities, thereby adding to the literature for other SDF units to research and adapt. Consider this as a call for articles for both the SDF Monograph Series and the SDF Journal as a medium for sharing the enhanced mission attempts, their successes and their failures. A failure carefully examined can redirect a SDF element to a successful application and deserves to be reported. Other SDF units can benefit from both.



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MARYLAND DEFENSE FORCE ENGINEER CORPS MATURES AND EXCELS

Colonel (MD) Brian R. Kelm, PE

A little over three years since the formulation and establishment of the Maryland Defense Force (MDDF) Engineer Corps, the organization has progressed from a fledgling unit to one which is more operational, stronger, better trained and more professional. This transition has been manifested by the provision of successful engineering support to the Maryland Military Department and the citizens of the State of Maryland. The Engineer Corps has been effectively and actively recruiting the finest engineering leaders in the state of Maryland, and through inspections, assessments and challenging training has become the chosen force multiplier to augment existing engineering capability which would have cost the Maryland Military Department thousands of dollars had it not been provided in a volunteer manner.

The Maryland Military Department does not have the capacity to provide full service engineering support through organic engineering or by contracting out these services due to a lack of resources. The key to the recent success of the MDDF Engineer Corps has been the early development and execution of a strategic plan (Kelm, 2007). This plan has been carried out in a measured manner ensuring a balanced approach of expanding mission areas tied to aggressive recruiting. Furthermore the systematic execution of this plan ensures that new personnel are brought into the unit "just in time," with the proper training, orientation and are gainfully occupied from their first day in the Corps.

Figure 1. MDDF Engineers on Shelter Assessment Mission for Maryland Emergency Management Agency

INSTALLATION STATUS REPORTS IN SUPPORT OF MDARNG

The Engineer Corps has continued to provide Installation Status Report support to the Maryland Army National Guard (MDARNG) Construction and Facility Maintenance Office (CFMO) as its initial core mission area since 2007 (MDMILDEP, 2007). The National Guard Bureau uses the U. S. Army developed Installation Status Report System (ISR) as the standard method for determining the condition of facilities and services against common standard for the programming of facility sustainment, restoration and modernization funding (DOA, 2007). In 2007 the Engineer Corps expended 450 man-hours of effort for the assessment of one third of the MDARNG's facilities across 23 installations. Building on the experience and knowledge that the MDDF Engineer Corps gained in 2007, the Engineers began a more aggressive program for the inspection of MDARNG facilities in 2008. They are not only collected the data, prepared reports but, based on the confidence of the MDARNG leadership, MDDF Engineers directly inputted the data into the U.S. Army's data base as a final product. In 2009 the Engineer Corps executed the entire program for the MDARNG, being tasked with 100 percent inspection of all armories, training areas and other facilities across the entire state for a total of 42 separate sites. This resulted in 1,200 man hours of

expended effort which relates to a cost avoidance to the MDARNG of approximately $120,000 had this effort been accomplished by in-house forces or by contract with an architectural/engineering firm. The MDARNG Construction and Facilities Maintenance Officer was impressed by this volunteer effort and stated that this mission essential task could not have been completed without the support of the MDDF and its Engineer Corps. Currently after three years of successful mission accomplishment the Engineer Corps is now the corporate memory for the MDARNG ISR program and for the condition of its infrastructure. Using the Engineer Corps for this program has resulted in consistent reporting of infrastructure condition in a uniform manner. This makes condition trend analysis more meaningful.

ORGANIZATIONAL CHANGES DRIVEN BY MISSION

The mission of the Engineer Corps has significantly increased beyond the inspection and assessment of MDARNG facilities. Other mission support areas that were originally identified in 2006 consist of internal engineer support to the MDDF, disaster assessment after a natural or manmade incident and the assessment of critical infrastructure prior to a disaster (Kelm and Hershkowitz, 2007). These mission areas could not be fully pursued due to the initial small size of the Corps. The MDDF Engineer Corps has grown from a handful of personnel to its current manning of 25 engineers requiring the organization to experience multiple realignments to support all three of mission areas. Likewise, as the organization quickly grows to the ultimate goal of approximately 50 personnel the organizational structure will continue to flex as it was originally designed to do. Not only has the organizational structure changed due to increase of personnel, but due to the new capabilities that have been introduced with the exceptional technical quality and knowledge of newly recruited personnel.

Command Staff Organization

As a military organization the Engineer Corps is organized in a battalion military staff organization with an Administrative Officer (S-1), Mapping and Graphic Information Officer (S-2), Operations and Training Officer (S-3), Logistics Officer (S-4) and Information Technology Officer (S-7) (DOA, 2003) The only difference between this staff and a typical battalion staff is that the S-2 function for the Engineer Corps is not a true intelligence function as in a combat unit, but a mapping and graphic information role. This capability is vital for the disaster assessment and the pre-disaster infrastructure assessment as well as the MDARNG ISR missions. Creating staff positions for the proper division of work across the Engineer Corps was critical to the efficient long term growth of the organization, and additionally was vital for proper staff liaison with the MDDF General staff or MDARNG staff. As a new and growing unit, the Engineer Corps required and still requires a flexible and scalable command organization and culture able to expand to provide the proper command and control to a growing unit with minimum disruption.

Tipping Point

During the first three years of the Engineer Corps' existence, the small initial number of personnel onboard the organization required the engineers assigned to the command staff to additionally provide direct labor to meet tasked mission requirements. This dual manning

of direct and overhead functions is more similar to a matrix organization,[1] versus the typical military organization of a staff providing overhead effort in support to the commander and operational subordinate units, which execute the commander's intent through direct labor. Early on the Engineer Corps was in a difficult position where each engineer had a staff responsibility for planning and then would "grab a shovel or clip board" to execute the increasing number of direct support missions for the MDARNG and MEMA all the while continuing an aggressive training and recruiting program to build the size and capability of the unit. The increasing number of missions included direct support of inspection for MDARNG facilities and most recently accepting the tasking of assessing public facilities for potential shelters during periods of disaster. Comments made by our *over tasked* engineers over the past two years include, "This has become my second full time job" and "We should have a spouses club similar to active duty military units that deploy." The ability of the Engineer Soldiers of the MDDF to keep all these mission balls in the air at one time was truly spectacular and is a testament to the complete dedication of this group of volunteer professionals.

As the Engineer Corps has doubled in size from approximately 12 to 25 personnel, the unit reached the tipping point where the required staff positions are fully manned, tasked and operating well with experienced staff personally imbued the mission and vision of the unit. With the additional personnel now available, the staff can now focus the majority of their time on managing current operations along with the planning for future operations and training of new personnel, versus being the direct labor for the execution of current operations. The new personnel who have been recently recruited into the Engineer Corps are now being assigned to operational units for the execution of well planned missions prepared by the newly focused staff. This new ability for staff to properly plan for the execution of the mission by operational units demonstrates the achievement of this tipping point which has now been reached, enabling increased efficiency and effectiveness.

Establishment of Engineer Operational Units

From the initial establishment of the Engineer Corps the intent was always to create subordinate engineering and/or construction units. The question was whether these units should be geographical units or be established along functional lines. As the organization grows to its initially planned manning of 50 personnel, and most likely larger, this question will continue to be considered. With the current staffing of 25 personnel, two operational units have been established along functional lines with one of these units focused on the technical engineering side while the other operational unit is construction focused.

Maryland Emergency Engineering Response Team (MEERT)

To support the MDARNG as well as MEMA, an engineering unit has been established known as MEERT. This unit consists of a "bull pen" of graduate engineers with the vast

[1] Definition of a matrix organization can be accessed at Business Dictionary.com. Available at http://www.businessdictionary.com/definition/matrix-organization.html

majority of them being licensed Maryland Professional Engineers.[2] The unit was established on 28 June 2009 based on liaison with the MDARNG Construction and Facilities Maintenance Office (CFMO). The commissioning of this unit was welcomed by the MDARNG after three years of successful ISR inspections that established the professional success and qualifications of the Engineer Corps (Kelm, 2009). The CFMO, responsible for maintenance, repair and construction of MDARNG facilities, asked for additional professional augmentation and assistance. The MEERT can provide professional engineering expertise, technical knowledge, experience and advice for facility deficiencies identified during the ISR process, or when structural, mechanical, or electrical failure is imminent. The Maryland Air National Guard (MDANG) CFMO's ability to quickly obtain the services of volunteer professional engineers from a stable of multiple disciplines that can provide technical and engineering assistance for facility and construction problems quickly is of great value. The current agreement with the CFMO is that the MEERT will provide assessments and recommended solutions to facility issues, but will not provide detailed engineer support such as detailed design. The MEERT can provide potential solutions through a scope of work along with a rough estimate as to the cost of a solution. With this the MDARNG will be in an optimal position to contract with an architectural and engineering firm for detail engineering design or contract documentation to implement an engineering solution.

Construction Division

The Engineer Corps consists not only of graduate engineers, but experienced personnel with exceptional expertise in construction methods, safety and management. To take advantage of these valuable skills the construction unit was established. One of the initial projects accomplished by the Engineer Corps in 2007 was the design and management of the renovations of the Merson Building at the Pikesville Military Reservation for use as the headquarters for the Maryland Defense Force (MDMILDEP, 2007). This well executed project, accomplished "on time and on target," set the standard of excellence for construction accomplished by the Engineer Corps. Although limited by the size of the unit as well as the material and tools available, the new Construction arm of the Engineer Corps provides the skill and expertise to assist other units in the MDDF with construction support as well as guidance and safety expertise to help these other units help themselves.

Liaison Officers to the 58th Troop Command and MEMA

Although not an actual operational unit, dedicated liaison officers have been identified and detailed to key partners with whom the Engineer Corps will work during natural or manmade disasters. These partners include the Maryland Emergency Management Agency (MEMA) and the MDARNG 58th Troop Command. The 58th Troop Command is the MDARNG

[2] "The Board for Professional Engineers qualifies and licenses persons seeking licensure to practice as a professional engineer. The Board regulates the practice of engineering under the provisions of Business Occupations and Professions Article, Annotated Code of Maryland, Title 14 and the Code of Maryland Regulations, Title 9, Subtitle 23." State Board for Professional Engineers, 500 N. Calvert Street, Room 308, Baltimore, Maryland 21202-3651. Available at http://www.dllr.state.md.us/license/occprof/profeng.html .

headquarters which will be designated for command, control and communications responsibility for any MDARNG response to a major disaster that hits the State (Kelm, 2009).

Engineer Corps Functionality

The Engineer Corps will not be able to effectively act as an independent unit in response to a large disaster such as a major hurricane that would involve larger areas of the State, but will most likely work closely with the MDARNG as part of multiple "capability packages." This is because the MDDF does not have the logistic capability to be an independent actor for such a large event. Providing value in a disaster situation, the Engineer Corps can bring engineering experience which is not readily available in current MDARNG units.

Although the MDDF is logistically challenged, the MDARNG has a significantly more robust logistical foundation consisting of communications capabilities, support capabilities (vehicles and rations) and a security capability. When this is teamed up with the technical engineering assessment skills of MDDF Engineer Soldiers, a team can be fashioned resulting in a valuable disaster assessment capability package. To ensure that the individual MDDF Engineer is ready, Defense Force Leadership has ensured that the individual Engineer has the basic Soldier skills of land navigation, first aid, CPR and field living skills. With these technical and basic soldier skills the MDDF Engineer can operate effectively as a team member in a "joint MDDF/MDARNG" environment. The proven engineering experience of the MDDF Engineer partnered in a relationship honed by close liaison and teamwork will allow these joint capability packages to succeed. These teams will be dispatched and transported into the disaster site by MDARNG vehicles, logistically supported and provided security by MDARNG Soldiers, all under the direction of the MDARNG 58th Troop Command.

Although the Engineer Corps has not been activated for its disaster assessment mission, depending on the scope of a disaster it very well could be assigned tasking directly from MEMA for smaller disasters. By this tasking, the Engineer Corps would be assigned as detached three-to-four person assessment teams for the documentation of the scope of damage. The result enables a request by the Governor of the State of Maryland to the President of the United States for federal disaster designation of an impacted area or areas of the State.

EXPANDED TRAINING ENHANCES READINESS AND PROFESSIONALISM

The proven expectation is that new Engineer Soldiers are technically proficient in engineering, construction and facilities management skills, and this is verified through the application process to become a MDDF Engineer. Some of the dedicated people who apply to the Engineer Corps may also have prior military service which varies in time and duration as well as type of service. Prior service is not a requirement for MDDF service. Each new Soldier independent of prior service, requires training in basic soldier skills and the policies and procedures of the Engineer Corps, but the Maryland Defense Force.

Initial Entry Training

Quickly upon the swearing in of a new MDDF Soldier, the basic military skills and knowledge required by each and every member of the Defense Force must be imbued into the individual Soldier whether service was initiated by enlistment or a commission. Not only must the new Soldier understand how to wear his or her uniform he or she must be able to comfortably operate in a military environment either with the MDDF or in support of the MDARNG. The new Soldier must be immersed into the ethos of service in the MDDF as well as understand the proud history of MDDF service to the State of Maryland and the traditions of the Engineer Corps.

In 2009 the Engineer Corps has initiated biannual initial entry training (IET) which meets all the requirements of MDDF basic training as well as focuses on the specific duties, responsibilities and needs of Engineers. Although the IET for the MDDF can be taken online, Engineer Corps Leadership has found that the best method of providing this training is through a classroom setting during two consecutive and intense Saturday sessions of approximately 6 hours each. This training consists of classroom instruction on the legal basis of the MDDF, military courtesies, first aid and land navigation, but also includes practical instruction in drill and ceremony as well as other areas where more than classroom instruction is required to bring the message home. To solidify the relationship between the established members of the Engineer Corps with the new members, and as refresher training, all Engineers attend this training regardless of their longevity in the organization. This truly bonds the organization together creating a strong camaraderie.

Figure 2. Initial Entry Training for MDDF Engineer Corps Soldiers.

Disaster Assessment Training

To operate in a disaster recovery and assessment environment Engineer Soldiers need basic assessment of and enhanced field skills. Over the past two years the Engineer Corps has focused on providing this fundamental training annually to each of its members. Training has been conducted in the following areas:

Land Navigation

Working in a disaster area, the ability to know your location and how to get from one point to another is vital. The usual landmarks of an area would most likely be destroyed resulting in a completely different look after a hurricane, tornado, explosion or fire. Engineer Soldiers need to be comfortable with the fundamentals and tools of land navigation, including map, compass and Global Positioning System. Training sessions have been conducted annually and most recently during the

Figure 3. Land Navigation Training Conducted at Gunpowder State Park in Maryland.

spring of 2009 for this purpose. These sessions have included both classroom and field navigation exercises at Maryland State Parks.

Firefighting

During disaster assessments it is very possible that MDDF Engineers could encounter situations that would involve fire. Firefighting is not a mission of the unit, but familiarity with the tools, equipment, methods and dangers of firefighting has great value in a disaster situation. In May 2009 the Engineer Corps partnered with the Naval Support Activity Annapolis Federal Fire Department for rudimentary fire fighting training. Training was conducted on a mobile fire fighting trainer under strict supervision by qualified fire fighting trainers.

First Aid

Although not first responders MDDF Engineers need to have the skills to provide medical first aid to members of their team that could be hurt during a disaster area operation, likewise to provide first aid response to any victims of the disaster that are encountered during an assessment mission. During July of 2009, first aid training was conducted for the Engineer Corps by a member who is certified to teach the Heart Saver® First Aid Class from the American Heart Association (n.d.).

MEMA Disaster Assessment Training

Engineers, construction professionals and facility managers have the technical skills to assess damage and provide estimated costs for repair, but most importantly this information has to be packaged and presented in the proper manner for State leadership and decision makers that will allow them to determine a plan of action for response and recovery. Training in the proper documentation techniques as well as specific federal disaster legislation was conducted in August of 2009 for the Engineer Corps by the Public Assistance Officer for MEMA. Additionally, with the completion of training, all members of the Engineer Corps were provided a tour of the State Emergency Operations Center and the Maryland Joint Operations Center, which is manned and operational 24 hours a day, 7 days a week, 365 days a year for any response required.

Figure 4. MDDF Engineers Attending Disaster Assessment Training at Maryland State Emergency Operations Center.

Community Emergency Response Team (CERT)

Although the Engineer Corps has focused much of its training on navigation, first aid and disaster assessment training, Community Emergency Response Training provides an exceptional overview of the conditions which an Engineer Corps Soldier can expect to encounter in a disaster area. CERT training (FEMA, n.d.) does not prepare Engineer Corps personnel to be “first responders,” but provides a context in which the individual Soldier can understand the “Big Picture” and touches on many varied areas such as cribbing for rescue of victims, marking that will be found on damaged buildings regarding the prior search for

victims, first aid, rudimentary fire fighting, how to interact with first responders and the fundamentals of disaster response and preparation. This is vital knowledge to the Engineer in the execution of the disaster assessment mission in support of MEMA.

Field Exercise

Individual training is important; however, bringing all the individual skills together and most importantly to exercise these together as a team is vital to assessing if the Engineer Corps has been trained correctly. Important leadership skills can also be exercised such as proper exercise of command, control and communications as well as small unit leadership. These important skills can only be demonstrated, exercised and assessed through real life experience during a disaster or through the simulation which can be performed by a field exercise. Each fall a field exercise has been conducted to bring all learned skills together, and exercised. Such an exercise has been conducted during the past two years at Baker Training Area near Hancock, MD. In November of 2009 the Engineer Corps will conduct a three day field exercise at Camp Fretterd near Reisterstown, Maryland.

Military Emergency Management Specialist (MEMS)

Although not as part of the specific training for disaster assessment training qualification, the MEMS Academy offers great value in the education of the individual Engineer Soldier for knowledge of the military emergency management function. All MDDF Engineer Corps personnel are pursuing qualification or already have been qualified as Military Emergency Management Specialists (MEMS) in accordance with the requirements established by the State Guard Association of the United States, MEMS Academy Program (MEMS, n.d.). Much of the training to achieve certification as MEMS is based on already established Federal Emergency Management Agency training, available online and in a classroom setting.[3] The Engineer Corps is not only requiring MEMS qualification for its personnel, but has taken the lead in administering the program for all personnel in the MDDF. Designation as MEMS qualified provides documentation of acquired knowledge and recognition as an emergency management professional.

[3] To achieve certification as a basic Military Emergency Management Specialist from the State Guard Association of the United States the following Federal Emergency Management Agency (FEMA) training is a requirement:
IS100, Introduction to Incident Command System;
IS200, Basic Incident Command System;
IS275, Emergency Operations Center;
IS292, Disaster Basics;
IS700, National Incident Management System; and
IS800.B, National Response Framework, An Introduction.
FEMA training is available at http://www.fema.gov/about/training/index.shtm .

SHELTER ASSESSMENT FOR MEMA

Different from damage assessment following a catastrophic event, MEMA also requires insight into the risk to critical infrastructure prior to a natural or manmade disaster to determine what preparations or modifications can be performed to avoid or mitigate potential damage and loss of life. The Engineer Corps is well on its way toward achieving successful mission accomplishment in this area which is aligned with the Department of Homeland Security's Strategic Plan's objectives to "Identify and assess the vulnerability of critical infrastructure and key assets" (USDHS, 2008-2013) As an initial step the Engineer Corps has been tasked by MEMA with the assessment of government owned buildings on the Eastern Shore of Maryland for use as hurricane and storm shelters for public use. Engineer Soldiers received the required training and education in September 2008 by taking the FEMA 361 course on Design and Construction Guidance for Community Shelters (FEMA 361, 2009).

Figure 5. MDDF Engineers Review Construction Drawings During Assessment of Queen Anne County High School for Potential Disaster Shelter.

Queen Anne County High School

With knowledge of engineering principals and the mastery of the necessary instruction, Engineer Soldiers evaluated Queen Anne County High School in July 2009 for potential use as a community storm shelters for different types of emergencies with a focus on use as either a hurricane or tornado shelter. Using the criteria from FEMA 361 this assessment was accomplished with the expenditure of 175 man hours, which would relate to a cost of approximately $17,500 had this work been accomplished by either architectural or engineering firm contract. To properly perform this assessment original and renovation construction documents were obtained from Queen Anne County, and studied in detail prior to the site visit conducted to validate what was shown in the drawings. The report has been completed and submitted on 31 August 2009. This report will be the template for follow-on reports for other facility studies that will be conducted in the near future to assess potential use of other public structures for use as shelters.

This report provides a recommendation of optimal areas that can be further analyzed in detail as refuge areas in the Queen Anne County High School for different types of hazards. Based on the hazard and its duration, it provides rough estimates of personnel that could seek refuge, and provides an initial scale of relative protection based on human and engineering/technical factors from the criteria of Annex B to FEMA 361 (2009). This document is not a substitute for a detailed engineering analysis, but is provided to aid decision-makers in the selection of areas of a building that are best suited to serve as a refuge/shelter area. Additionally, this report can be used in identifying potential hazard mitigation and emergency management actions such as modifications and alterations to the facility's structure and infrastructure.

AGGRESSIVE RECRUITING BOOSTS QUALITY AND QUANTITY

The single greatest success of the Engineer Corps over the past year has been the sustained and well regulated growth of the unit. The organization has grown from approximately 12 personnel to 25 Engineer Soldiers. Measuring the growth by numbers alone does not show the complete success of the recruiting effort. The technical capability of the unit has more than doubled as the technological quality and expertise of those recruited has greatly increased. One example of the increase in capability is that over the past year the organization has gone from one professional engineer (PE) to a total of 10 PEs currently on the unit's roles. Registration is not the only vast improvement in qualifications as the Engineer Corps has brought on new personnel that include a qualified safety officer as well as a former Army diver. The organization now has confined space expertise as well as the services of a nuclear engineer. The breath of experience and technical expertise has greatly increased resulting in a vastly more accomplished engineering organization able to take on more diverse tasking from the Maryland Military Department.

Maryland Society of Professional Engineers (MDSPE)

Much of the success of the recruiting effort has been a strong partnership between the MDSPE and the Engineer Corps. The past, current and future presidents of this organization have all been brought into the Engineer Corps resulting in some of the most distinguished engineering professionals in the State of Maryland being members of the Corps. Regularly short recruiting programs are provided at engineer professional societies to explain the value of volunteering to serve the State. These presentations have been well received resulting in a distinct increase in Engineer Corps membership.

Support from Sponsors

Not only have recruiting programs been beneficial for additional membership in the Engineer Corps but an unanticipated benefit has been the donation of funds and equipment to the Engineer Corps from benefactors for mission support. The unit has received military load bearing and disaster assessment gear which can be used for "Go Packs" complete with flashlights, compasses and other needed equipment which will be of great help in accomplishing the disaster assessment mission. Each Soldier has been issued the equipment which can be packed and ready to go for immediate response in case of disaster tasking from MEMA or the 58th Troop Command. This not only places the unit in a higher readiness condition, but the donation of this equipment increases morale of the unit as the individual Soldiers sees that his or her dedication is valued by Maryland's citizens.

FUTURE OF SUCCESS AND ACCOMPLISHMENT

As the Engineer Corps grows in size, quality and specifically as additional graduate engineers and architects are recruited, the role of risk assessment for critical infrastructure both public and private will be expanded beyond that of shelter evaluation. When the recommended actions determined during the risk assessment are executed, the impact of a potential disaster on critical services, facilities and injury to citizens can be minimized or eliminated. In the vast majority of disaster situations the cost of mitigative actions are significantly less than the cost of recovery. Although the initial priority for critical infrastructure

assessment will be for public facilities and structures, the same principals can and will be used to mitigate the damage to critical private property.

The MEERT has recently been activated. Already missions have been accomplished in support of the MDARNG and as this capability further matures the Engineer Corps will seek to provide this same service to the MDANG. Just as the ISR mission accomplishment increased visibility and recognition of the Engineer Corps, the growing use of the MEERT will further enhance its reputation as positive feedback reports back on the increased capability and responsiveness of this newest of the Engineer Corps mission area.

The further identification of mission areas such as the MEERT, ISR assessments, disaster assessment for MEMA, along with shelter assessment allows the development of Mission Essential Task Lists (METL) similar to those developed and approved for the Active Duty and Reserve Force. METLS for the Engineer Corps validated by State Defense Force, National Guard and civilian leadership will facilitate the determination, and allocation of resources required to better execute Engineer Corps assigned missions. The Engineer Corps readiness to accomplish its mission can then be optimized to the resources available. By implementing this proven Department of Defense system, the inherent efficiency of Engineer Corps as well as other units within the MDDF will be highlighted, and the proper prioritization of resource planning, programming and allocation of funding can maximize capability for minimum costs. MDDF units that are “mission execution focused” will do well in the competition for scarce funding based on their minimal cost and efficient focused mission capability.

CONCLUSION

Across the nation State Defense Force (SDF) units such as the Maryland Defense Force and, in particular, SDF components such as the Engineer Corps have proven their capability, flexibility and utility to provide assessments of MDARNG infrastructure and evaluation of facilities prior to disaster, as well as response to disasters, manmade and natural. Providing emergency management services on the state level before and after a disaster strikes is a primary mission for the 23 SDF units across the country (Carafano and Brinkerhoff, 2005); however, through standardization and communication of good ideas the efficient execution of these missions can be optimized. With the increasing requirement for the National Guard to deploy as part of Counter Terrorism Operations, SDF units in the future must be ready to pick up not only the disaster mitigation and response missions to an even greater extent, but need to be have the training and resources to successfully accomplish this. To successfully enhance the current and future readiness of a SDF unit, improvements and modifications must be made such that the SDF’s leadership is better able to articulate the mission and obtain corresponding resource requirements to compete in an environment of ever more tightly stretched state and Federal funding. The time to capitalize on these opportunities is at hand, the future of the state defense force has never been as bright, but if not quickly seized the opportunity will be gone. The Engineer Corps of the Maryland Defense Force is on the cutting edge for providing engineering support to the Maryland Military Department and is leading the effort.

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ON PLANNING A DAMAGE ASSESSMENT

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ABSTRACT

Disaster assessment and damage assessment are vital tools in determining the viability of selected sites to provide protected facilities for citizens living in the area following a natural or manmade disaster. The former determines if the site and the facility are suitable and prepares a list of needed modifications, supplies and personnel to make the site and facility ready for a disaster. The latter determines any difficulties or shortcomings that were experienced and proposes improvements and enhancements to the plan to improve existing and new sites and facilities. The plan presented herein is a "model by example," that is an actual physical site physically examined against an hypothetical threat, and the components of the model are detailed.

OVERSIGHT

The Maryland Military Department (MD MilDep) consists of four pillars, the Army National Guard (MDARNG), the Air National Guard (MDANG), the Emergency Management Agency (MEMA) and the Defense Force (MDDF).

MEMA was established by Maryland legislation (MEMA-a, n.d.) to ensure that the state is prepared to deal with large-scale emergencies and is responsible for coordinating the state's response in any major emergency or disaster. Its mission is to reduce or eliminate the impact of future disasters through the mitigation and recovery process, where proper planning and preparedness are the keys to surviving a disaster. Additionally, its mission is to protect the lives, property and environment of citizens by providing the emergency management leadership and coordination of response and support agencies throughout a comprehensive all hazards approach (MEMA-b, 2009). A key element of MEMA is the Maryland Joint Operations Center (MJOC), operated round-the-clock by National Guard (NG) emergency management professionals and augmented by MDDF Soldiers during high-tempo operational periods such as natural disasters.

The Maryland National Guard (NG)[1], under Title 32 of the U.S. Code (32 U.S.C., 1955), has the mission of providing MEMA with assistance in carrying out its mission and responsibilities. Under Title 10 of the U.S. Code (10 U.S.C., 2006) the NG can and often is deployed (i.e., "Federalized") for combat, peacekeeping or homeland defense missions. Under these conditions MEMA's support from the NG is limited, particularly if deployed overseas. When under Title 10 control NG forces are under federal control even when supporting the State for disaster response missions.

[1] NG refers to both the MDARNG and the MDANG.

The MDDF is a volunteer military unit that functions as a force multiplier for the NG under U.S. Code 32, § 109 (32 U.S.C., 1995) and can not be federalized. The leadership of the MDDF Engineer Corps (EngrCorps) of MDDF (Kelm and Hershkowitz, 2007; Kelm, 2009a), recognized that the NG can be limited in the amount of support that it can provide to MEMA because of continuing deployments for combat, peacekeeping and homeland defense missions. Because of this potential limitation to the NG the EngrCorps has prepared itself and has volunteered to provide the NG with extensive engineering for evaluation of existing facilities as disaster shelters in support of MEMA . In addition to expertise which is provided through the engineering discipline of graduate engineering programs and professional registration the MDDF Engineers have relied upon and utilized the criteria of the Federal Emergency Management Agency's (FEMA) "Design and Construction Guidance for Community Shelters" document (FEMA B-653, 2008) [2].

The MDDF is not a first responder to a disaster site. When tasked by the Adjutant General (TAG) MDDF units will respond to any disaster site, including members of the medical, engineer, legal, chaplaincy and financial directorates , and the regional battalions. In most foreseeable disaster scenarios MDDF Soldiers could not be onsite until a major storm has passed as individual soldiers have to be notified, organized and deployed over transportation infrastructure that may be impacted by damage. At the earliest it would take 24 hours for MDDF Soldiers to be on site and more realistically 48 hours. Accordingly, its mission following a catastrophe would be that of damage assessment. First responders would have already responded to most requests for immediate assistance; however, it is likely that MDDF units will run into victims that did not have communications ability to contact first responders. Accordingly, MDDF Soldiers need the basic Community Emergency Response Team (CERT) training in areas such as first aid, elementary rescue and fire fighting, and other disaster response basics (CERT, n.d.).

On the other hand, much the same expertise required to conduct a disaster assessment can be utilized to determine the potential capability of identified sites and facilities for the provision of relatively safe locations for the citizens in those areas to use as temporary refugee sites (FEMA 361, 2009). If there is some lead time prior to a disaster, or as pre-disaster mitigation MDDF Soldiers could have the time to effectively organize and prepare team duties for this mission. Prior to a disaster the transportation infrastructure will not have been impacted. The resulting assessments can determine the feasibility of the facilities for this purpose and, if feasible, program, plan and schedule needed upgrades and/or modifications to allow the facilities to be used as satisfactory temporary refugee sites or disaster shelters.

The EngrCorps, knowing of MEMA's need to conduct damage assessment activities, again prepared for and has volunteered its services in support of and augmentation for this traditional NG homeland security mission. The plan proposed herein represents a complete

[2] FEMA's Mission is to reduce the loss of life and property and protect communities nationwide from all hazards, including natural disasters, acts of terrorism and other man-made disasters. FEMA leads and supports the nation in a risk-based, comprehensive emergency management system of preparedness, protection, response, recovery and mitigation (FEMA B-653, 2008).

"disaster" assessment [3], where the selected site has been made as structurally safe as can be accomplished within the time and resources available, and the logistics needed to support the anticipated "refugee" population have been anticipated and provided in preparation of a catastrophic emergency.

MODEL CONSTRUCTS

Model design may take many forms; however, for damage assessment there are really only four forms of significance:

- Mathematical Model – A set of equations estimating the conditions of interest, with constants and parameters estimated from statistical and/or probabilistic determination of real life experience, where the modelers can test a variety of catastrophic situations by varying the values of the constants and parameters to determine the strengths and weakness of the model.

- Physical Model – A miniature physical construction of the site and conditions of interest, where the modelers can test a variety catastrophic situations to determine the strengths and weakness under each situation.

- Chemical Model – A model used to test the impact of a Chemical, Biological or Nuclear attack on the site of interest.

- Model by Example – An actual physical site physically examined against an hypothetical threat, such as an hurricane, tornado, flood, fire or manmade catastrophe.

For the purpose of supporting the NG's mission in support of MEMA the "model by example" appears to offer the best opportunity to examine the physical aspects of the site under selected threats and to plan the logistics necessary to make it a safe site for the area's citizenry. Accordingly, for the planning model proposed herein, an example has been created and the planning effort for each of the components involved are briefly discussed.

THE MODEL BY EXAMPLE

The Scenario

The Model's Disaster Situation

- A category 3+ Hurricane named Linda hits the eastern seaboard of the United States
- The eye of the storm passes through the eastern shore of Maryland
- Winds hit the eastern shore at 125 mph
- Passing through the Annapolis Area and Washington DC the storm is downgraded to a tropical storm

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[3] The term "damage" assessment is a misnomer, it implies an analysis of damage after the fact in an attempt to plan site improvement and protection for future construction; the term "disaster" assessment implies an effort to assess the problems in advance and create an operational plan for establishing a safe "refugee" center in preparation of a catastrophic event.

- Its winds reduce to 72 mph
- There is significant wind damage from the storm
- Fifteen (15) inches of rain create the greatest amount of damage to the area
- The Governor of Maryland declares a state of emergency for the entire state and prepares to ask the President of the United States to declare Maryland as a Federal Disaster Area
- The Governor has asked MEMA to staff this request
- The MEMA assessment team and personnel are deployed across the State
- The NG has been mobilized by the Governor under Title 32
- MEMA has requested through the Maryland Adjutant General (TAG) that the Maryland Defense Force (MDDF) deploy disaster assessment teams to the town of Atkinsville, Maryland, which is near Camp Fretterd, to:

    - Assess damage from Hurricane Linda
    - Provide a rough estimate of damage to support the Governor's request for declaration as a Federal Disaster Area
    - Select a suitable site and facility to provide temporary protection for refugees from the storm
    - Provide recommendations as to temporary repairs and prioritization of effort for that site and facility
    - Prepare an estimate of staffing, logistics and costs to maintain the site and facility.

The Selected Site

The city of Atkinsville is the location area and MEMA has determined that the recently constructed Smalkin High School should be considered as the site and facility to provide protection for refugees from the storm. The conditions leading to a possible disaster are:

- Excessive rains have resulted in Lake Wilson overtopping its dam and a dam further down the Duears River which is 10 feet over its flood stage
- Flood waters have scoured the river banks and have caused damage to the Vissers Bridge which crosses over the Duears River
- Maryland Route 25 crosses the Vissers Bridge and is the main route that serves Atkinsville, Maryland
- The two dams on the Duears River are holding, but there is concern by the local public works officials as to the structural integrity of these two earthen dams
- Conticello Gas and Electric (CGE) has a power plant which serves Atkinsville and the local area near Lake Wilson; the plant manager is concerned that the earthen dam may fail and flood the power plant
- The city of Atkinsville, has suffered wind and water damage with major damage to the Minken Memorial Hospital, which is being heavily utilized due to personnel injuries from the storm
- Even though the storm is past and weather conditions have returned to normal, first responders have been responding to requests for assistance
- Due to the size of the storm and the breakdown in communications infrastructure there continue to be isolated areas where emergency medical and rescue are still required

- NG units continue to be needed to scour outlying areas for isolated and injured individuals who could not get to the refugee protection site.

Chain of Command

Typically, the NG would receive a mission assignment directly from the MEMA through TAG and then, if the mission requirements specify a need for the expertise of the MDDF EngrCorps, it would then assign a mission to MDDF through TAG along with appropriate instructions and guidance. In the present scenario MDDF has been deployed by TAG directly in support of MEMA to perform a damage assessment for the Town of Atkinsville instead of being attached to the NG, which is likewise a very possible scenario. Working directly for MEMA, MDDF tasking is then passed directly from the Maryland State Emergency Operations Center (EOC) or though a local EOC. Once deployed to the Town of Atkinsville, MDDF units are assigned in direct support of and under the command of the Incident Commander or Area Commander in accordance with Incident Command System (ICS) concepts (FEMA, n.d.).[4]

Throughout the application of this model it is important to remember that the chain of command and rank remains in force within the units. It is at the working level between any two of the units, particularly when one is the MDDF where the Soldiers are older and typically of higher rank, that it is imperative for the MDDF Soldier to remember that he or she serves either of the other two; thus, the higher MDDF rank may be given direct orders or instructions from someone of a lower rank. It would be best served if MDDF Soldiers phrased their guidance or instructions to members of the other two units in terms of a suggestion based on extensive knowledge.

Components of the Model

Command, Control and Coordination

Effective and efficient Command, Control and Coordination (C3) is critical to the success of any military operation, and likewise is key to the ability of the MDDF to operate in a disaster area. The significant damage to the area of operations in which MDDF would be working would most likely result in the existing communication infrastructure for the Town of Atkinsville to be inoperable.

MDDF COMMAND POST

A command post is of utmost importance in the tactical control of the individual assessment teams that will be sent out for disaster assessment, and later for damage assessment, and follow on requests for emergency response for assistance from the local community. The command post needs to be properly staffed to handle communications both internal to the unit as well as external communications to both supported and supporting units.

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[4] The Incident Command System (ICS) is a standardized, on-scene, all-hazards incident management approach that: (1) allows for the integration of facilities, equipment, personnel, procedures and communications operating within a common organizational structure; (2) enables a coordinated response among various jurisdictions and functional agencies, both public and private; and (3) establishes common processes for planning and managing resources.

The command post must be able to communicate with the local and state EOC through web based programs such as WebEOC which is the standard web based C3 program utilized by MEMA for intrastate command and control from the Maryland State EOC (MARC, n.d.).[5] Utilizing WebEOC requires information technology (IT) equipment such as laptop computers with a link into the internet. As previously mentioned it may be problematic to use land line or air cards® (AirCard®, n.d.)[6] which link through cell phone circuits. Satellite phone (Satphone)[7] capability may be the proper method of communications for an internet link to WebEOC. This communications tool will allow the passing both up and down the chain of command ultimately to MEMA.

The command post will additionally coordinate and vector in any requests for support from MDDF teams in the field. This could be the provision of additional logistical support or helicopter evacuation (HELIVAC) support for medical issues whether these are from MDDF team injuries or medical support should the teams come across previously missed disaster victims.

The command post requires the capability to graphically display information be it by projected computer screen, large computer monitor or by old fashioned maps and grease pencil. Map overlays are required to track the progress and location of MDDF teams for aid to victims or for disaster assessment. The status of teams and location of key sites must be visually understood for the communication and coordination of unit missions. Graphic displays are critical for the briefing of local community leaders and military leadership engaged in supporting the relief efforts.

Communication

Telephone lines would be down, poles snapped, and key communications structures submerged under flood waters. Cell phones would be useless as cell towers would be damaged and with land line communication down the cell network would be overwhelmed with personal and official calls as happened during the 9/11 attacks in New York City, cellular

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[5] WebEOC is a web-based information management system that provides a single access point for the collection and dissemination of emergency or event-related information. It was designed to aid decision making by providing authorized users real-time information in a user-friendly format. WebEOC can be used during the planning, mitigation, response and recovery phases of any emergency. It can also be used by agencies during day-to-day activities to manage routine, non-emergency related operations.

[6] An AirCard® is a device for a laptop, personal digital assistant (PDA) or cell phone that allows the user to connect to wide area wireless Internet access.

[7] A satellite telephone, satellite phone or satphone, also known as a terminal, is a type of mobile phone that connects to orbiting satellites instead of terrestrial cell sites. Depending on the architecture of a particular system, coverage may include the entire Earth, or only specific regions.

phone services were either not working or were severely overloaded (Verizon, n.d.).[8] Defense Force units that deploy into such a disaster area of operations must bring in their own communications infrastructure and C3 capability for safe and effective mission execution.

INTERNAL TACTICAL RADIO COMMUNICATIONS

Hand held or back pack radios are the preferred method of internal unit communications for this type of operation. These types of radios would be used between the MDDF teams in the field be they engineer disaster assessment teams or other types of disaster aid teams. Interoperability with military communications is preferable and required if working in support of MDARNG or other military units. VHF radios (VHF, n.d.)[9] are preferable for tactical control of disaster assessment teams and a base station is required in the MDDF command post. They provide a range of approximately five miles and provide line of sight communications. They can have issues in rough terrain, but the use of a base station with elevated antenna usually minimizes any line of sight issues.

EXTERNAL RADIO COMMUNICATIONS

Longer range radio communications can be provided by HF radio (HF, n.d.)[10] for communications. Although technically more challenging, the additional range provided by HF radios make them vital to operations.

Engineer Assessment

Engineer assessment is a critical capability that the Maryland Defense Force Engineer Corps can bring to the disaster response solution. The Engineer Corps brings volunteer professional engineer qualifications and construction management expertise to bear on the assessment of damage, determination of preliminary cost estimates and development of a priority of temporary repairs (Kelm, 2009b). The different disciplines of the Engineering and Construction fields can be of great value in performing both a disaster assessment and a damage assessment.

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[8] Lines formed at all pay phones (Satellite News, 2001), tens of millions of (phone) calls threatened to clog the system (Gibbs, 2001), the wireless network experienced massive congestion (Guernsey, 2001), telephone communications for NYPD Command and Control was destroyed and NYC Transit lost a key portion of its fiber-optic network in one tunnel (Verton, 2003, p. 143), communication problems were experienced around Washington, DC and some top government officials were affected (Jenkins and Edwards-Winslow, 2003, p. 33; Verton, 2003, p. 151), emergency responders, and government officials experienced serious communications problems (Staff, n.d.), the nation was “deaf, dumb, and blind” for much of the day (Verton, 2003, p. 151).

[9] The very high frequency (VHF) radio range is between thirty and three hundred megahertz. This places VHF radios at a much higher meter band than the frequencies used by amplitude modulation (AM) radio broadcasts. Along with the use of a higher meter wave, VHF radios also provide a higher incidence of audio quality than other forms of broadcasting. Part of this is due to the fact that the quality of the transmission tends to filter out noise and weaker signals.

[10] The high frequency band is very popular with amateur radio operators, who can take advantage of direct, long-distance (often inter-continental) communications.

ENGINEERING AND CONSTRUCTION MANAGEMENT

Engineering and construction management expertise is vital to the assessment, prioritization of effort and repair of critical public and private infrastructure. Civil engineers can assess roads for temporary and permanent repairs as well as washed out bridge abutments. Their ability to look at foundations and earthen structures such as dams which have been damaged by excessive water flow is of great value in the determination as to the serviceability of the structure and whether the dam is safe. The failure of a dam can cause devastating effects on any personnel and property down river and the hydrological aspects of a potential dam failure must be assessed.

STRUCTURAL ENGINEERING

Structural engineering expertise will be utilized to determine whether damage to a facility is superficial or has weakened a structure such that it is unsafe. A further detailed study can determine whether a damaged facility is capable of repair or should be demolished due to safety considerations or whether the cost of repair is worth the effort. Temporary shoring may be a viable solution available for the restoration of facility operations in the case of critical infrastructure such as utility facilities or communication structures.

ENVIRONMENTAL AND SANITARY ENGINEERING

Environmental and sanitary engineering capability is of great importance in reestablishing water and sewage treatment service to an area hit by a disaster such as a hurricane. Potable water breaks from earth slides or washed out areas can result in contaminated water that can compromise the entire water distribution system. Repairs must be made and a follow on course of action to ensure safe water distribution must be determined and placed into action. Additionally, the treatment of waste water and sewage is of great importance to keep a natural disaster from quickly becoming a medical emergency such as cholera brought on by waste.

ELECTRICAL ENGINEERING

Electrical engineering proficiency can be of significant value in determining how to bring back critical areas of the power grid for the restoration of public services such as water production, sewage treatment and other critical infrastructure, including hospitals and logistical facilities. Electrical engineers on damage assessment teams bring the ability to assess damage to the electrical distribution system and determine safety issues prior to the restoration of power to an area. One often overlooked area of assessment is when emergency generation is utilized and that section of the grid that is not properly isolated from the rest of the grid. A very dangerous situation can be created if emergency power is fed back into the grid resulting in energized lines that have been downed and exposed by the disaster

(PUD, n.d.).[11] Emergency responders as well as utility workers can be seriously hurt or killed if proper isolation from the power grid is not performed.

National Guard

The current model scenario has the NG being fully utilized in other disaster recovery operations in other areas of the State. Another scenario would be that the MDDF provides professional augmentation to NG units as part of a capability package. The NG has a much more robust logistical and transportation support structure, can bring sophisticated communication equipment and has robust security resources that the MDDF can not provide. The aviation and helicopter resources that can be provided by the NG are unmatched within the state; however, the NG does not have the in-depth technical capabilities and experience of the MDDF professional directorates in the areas of Engineering, Medical, Chaplaincy, Finance and Legal. The labor resource of younger NG Soldiers for manual intensive tasks such as the filling and placement of sandbags is a strength that the MDDF does not have. Most MDDF Soldiers are significantly older than NG Soldiers who are also available in greater numbers. Capability packages of NG and MDDF technical teams such as those containing engineers provide a powerful team asset which can be effective if optimally used in disaster response.

Chaplaincy

All religious leaders are trained to provide spiritual and social aid, and comfort to their congregants. Chaplains, however, have a much more advanced training regimen with regard to treating with the needs of the military families. Their congregants suffer from separation, isolation, often poor living conditions, occasionally poor nutrition, often fear for the well being of a loved one or even multiple loved ones, fear for themselves and so much more than that which the civilian religious leader can ever fully cope. Add to this that everyone is living inside a closed area, small for the number of inhabitants, no privacy, no connection with family and friends outside the site, little variation in available food, conditions that will clearly lead to an explosive situation among some the inhabitants.

At a disaster refugee site the Chaplain faces a full plate of services as the refugees will present all of the problems he is trained for, often has had the experience of dealing with most or all of them and all of this occurring within a microcosm of society. Fortunately, the Chaplain is often experienced in working with individuals of many different religions. The Chaplain will provide an aura of understanding and calm. Based on the number of individuals that the site can hold an estimate of two-to-three Chaplains would be appropriate.

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[11] If you feed power back into the utility system during an outage, you will energize the transformer serving your house. This poses an electrocution hazard for People Utility District (PUD) line crews and for your neighbors who may not know the lines are energized. If power is restored while your generator is backfeeding, your generator may be severely damaged.

Cost Accounting

The expressed purpose of providing disaster assessment support to MEMA is for the identification and computation of the estimate of damage such that State or most likely Federal funding can be obtained through the designation of a Federal Disaster Area by the President through the Robert T. Stafford Disaster Relief and Emergency Assistance Act. (42 U.S.C., 1988). By this act Federal and State officials must conduct a preliminary damage assessment to provide an estimate as to the scope and extent of any disaster and determine its impact on individuals and public infrastructure and facilities. The Governor must provide a request to the President prior to a declaration and as part of the request the Governor must furnish information as to the nature and the amount of State and local resources that have been or will be committed to disaster relief. This is a requirement that the Governor certifies obligations and expenditures. The preparation of this information is heavily dependent upon proper cost accounting procedures and techniques.

Financial expertise such as can be provided by the MDDF Finance Corps is critical to this capability and organizations such as this must be brought into the damage assessment team, must be a part of the disaster recovery effort and support the Incident Commander's Finance and Administrative Section per the Incident Command System (FEMA, n.d.). Not only is cost accounting capability critical during the assessment of a disaster, but more so for the accounting and management of resources expended in the response to a disaster as so clearly demonstrated by Hurricane Katrina. During the disaster assessment cost estimates for facility and site improvements to meet emergency requirements are needed in order to facilitate the improvement and enhancement of the refugee site and facility.

Legal

Extensive legal skill, expertise and advice are important to an incident commander or to any unit commander involved in disaster assessment or recovery effort. A maze of laws on the Federal, State and local level can be confusing and contradicting. The entire legal playing field changes when an area is transformed by the declaration of a Federal Disaster. Use of Federal assets and assistance are authorized for some types of damage and not for others. It takes legal knowledge to understand the different types of loans and assistance that can be provided and to whom these services can be provided. Legal assistance is required for areas such as insurance claims, counseling on landlord/tenant problems, consumer protection matters and the replacement of important legal documents that are destroyed in a major disaster. During the disaster assessment it may be necessary to determine local and state laws that impact on changes recommended/made to a refugee site and/or facility to improve and enhance it.

Local Battalions

MDDF Regional Battalions are designed to provide it's professional units with manpower support for a variety of activities. The disaster refugee site will have armed security from the NG; however, there are many security related activities inside that will need manpower support. People need reassurance and assistance, and the battalion personnel will have that as a principal function. Children will need monitoring, elderly persons will need assistance, food and other supplies will have to be monitored, a constant watch will be needed

to prevent stealing, roughhousing and similar antisocial activities. Other activities might include parking safety, assistance to the NG in rescue efforts along access roads, waterways and facility security. One possible staffing scenario is two officers, four noncommissioned officers and eight-to-twelve enlisted Soldiers, which should permit sufficient personnel for a six-hour-on/six-hour-off shift.

Logistics

A logistics plan is absolutely necessary. There will be a need for sanitation to include "porta-johns" to backup building sanitation, backup water supply, soap, toilet paper, paper towels; sleeping materials to include cots, inflatable mattresses, bed-rolls, blankets, pillows; food to include a variety of nutritious liquids and solids, disposable plates, bowls, cups and plastic-ware; clothing to include simple clothing, both male and female in a variety of sizes for those persons who were unable to bring their own, spare uniforms for MDDF personnel; lighting to include lamps and flashlights (fixed, portable and hand-held), bulbs, batteries; temperature control to include fuel, fans, heaters; tools to include indoor tools (power and manual), outdoor tools (shovels and bags for sandbag capability, axes and saws for tree removal); miscellaneous to include portable radios, board games for children.

Medical

It is most likely that MDDF units will not be first responders to a disaster area and most emergency medical response from the initial damage of a disaster will have been provided by local and already deployed first responders. Medical issues in a disaster area are many and complex. For a sustained period after the initial damage there will be debris and multiple unsafe conditions which will be encountered by not only MDDF personnel, but local people in the area who weathered the disaster or returned for personal assessment of damage.

A medical capability will be needed to cope with injuries sustained while transiting through the disaster area on the way to the refugee site and injuries and illnesses sustained while at the site. At the least, plans should be made for a first-aid section, triage section, preliminary medical capability to include physicians, nurses, other medical personnel; medical supplies to include first aid, bandages, suturing materials, limited medication needed for a large body of persons enclosed in a limited area. Additionally, consideration of clinical aid should be made for crisis counseling for the immediate mental health needs of victims and responders, for screening, diagnostic and outreach services.

Depending on the size and scope of the disaster there will be a need for public health expertise in sanitation to survey the area and make any recommendations. Temporary shelters for victims such as tent camps, which are most likely in densely populated areas, require continual sanitation evaluation for basic habitation needs. Outbreaks of disease such as cholera can occur if sanitation is not carefully monitored. Mass feeding areas additionally must be monitored for health and safety conditions.

ANTICIPATED RESULTANT TEAM SKILLS AND MISSION ESSENTIAL TASKS

To successfully complete the mission of damage assessment and disaster response, the Soldiers of the MDDF must have demonstrated individual and team skills which consist of, but are not limited to:

- Command Control Communications (C3) for unit leadership for the command element and the multiple teams in the field
- Disaster assessment per FEMA and MEMA guidelines and format
- Land navigation skill with map and compass as well as use of the Global Positioning System (GPS)
- Field operations and survival
- Small unit leadership
- Civilian Emergency Response Team training (CERT, n.d.)[12].

These skills are vital and must be imbued in the individual as well as the teams before they can be certified as qualified to operate in a disaster area. Optimally, these skills should be listed during the development of a Mission Essential Task List (METL) (DOA, 2002)[13] for MDDF and especially the EngrCorps as these are the capabilities required for MDDF to be able to execute its mission of damage assessment and disaster response.

CONCLUDING THOUGHTS

As with all military organizations the Maryland Defense Force has struggled with its mission over the past and has continually reevaluated the value that it brings to the State of Maryland. When originally formed it consisted of an infantry type of organization and was set up in platoons, companies and regiments. Similarly during World War II when reactivated it had an analogous type of organization with a mission of guarding critical military and civilian infrastructure. When reorganized in the 21st century the MDDF was realigned into an organization positioned as a source of specialized skills and a force multiplier by providing professional services to complement and supplement the MD MilDep.

The plan presented herein is a model by which, at the request of MEMA through TAG, the MDDF EngrCorps can confirm proposed sites throughout the state as suitable for emergency refugee locations, including lists of needed materials and equipment. In this manner MEMA can provide Maryland citizens a measure of safety during one of a variety of natural or manmade disasters. Thus, MDDF will have laid the groundwork for the MEMA/NG mission to conduct a Critical Infrastructure Risk Assessment.

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[12] The Community Emergency Response Team (CERT) Program educates people about disaster preparedness for hazards that may impact their area and trains them in basic disaster response skills, such as fire safety, light search and rescue, team organization and disaster medical operations.

[13] The commander must identify those tasks that are essential to accomplishing the organization's wartime operational mission. The battle-focused METL identifies those tasks that are essential to the accomplishment of the unit's wartime operational mission and provides the foundation for the unit's training program.

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BATTLE RHYTHMS AND THE BATTLE MIND
Business as Usual:
Are we failing our psychologically injured soldiers?

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Abstract

Is our psychological "Ops Tempo" off kilter? Soldiers returning from battle often need psychological care as well as physical care. Families of soldiers need the same care. Although much continues to be written in the media and much talk is done in military and political circles, and even though those at the top may believe that such services are necessary, little is happening to make it so for this underserved population. Money is promised and even appropriated. Professionals, if they can be found, may be hired. The services are still not getting to all who need them. While the tone of this writing seems global in scope, it is primarily aimed at the limited or nonexistent services that are much needed by National Guard troops and Military Reserves. In this paper, the work of Behavioral Health Officers within the Medical Brigade of the Texas State Guard, and their report on this subject to the Adjutant General of the State of Texas, are referenced. Not all that can be done is being done for the active, regular military. Almost nothing is being done for the Guard and Reserves; most notably the Guard. This is the focus here. No attempt has been made to provide all of the answers; just to highlight some of the questions. Answers mean little unless the right questions are asked first (Maze, 2008).

> **"Therefore but a single person was created in the world, to teach that if any man has caused a single life to perish from Israel, he is deemed by Scripture as if he had caused a whole world to perish; and anyone who saves a single soul from Israel, he is deemed by Scripture as if he had saved a whole world."**
>
> (From the Talmud. Sanhedrin, Chapter four, Mishnah five, Section three.)

KEY WORDS: Battle Mind; Psychological Battle Rhythm; National Guard; Behavioral Health; Psychological Services; State Guard; Combat stress; Mental health.

The Numbers

1.5+ million American Active Duty soldiers, sailors, airmen and marines have been deployed to fight the Global War on Terrorism.

At least 832,000 personnel have been deployed from the National Guard and Reserve units in our communities.

Over 500,000 military personnel have served two tours in a combat zone.

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About 700,000 children in our country have at least one parent deployed.

Approximately 4,266 military personnel have been killed.

65, 588 military personnel have been wounded, injured or contracted illnesses.

Approximately 36,000 troops have physical wounds, illnesses and permanent disabilities requiring evacuation.

62% suffer from traumatic brain injuries.

25% of those returning from combat deployment have psychological problems.
[Multiple Sources, Department of Defense (DOD) and Department of Veterans Affairs (VA); Doolin, 2009]

Post-deployment behavioral health – Let's get serious.

A lot of talk. A lot of money. A lot of pain among the troops. And we just keep talking. The military historically has not done well with the concept of psychological injuries and psychological care. At times, psychological services served as a convenient source for punishment of soldiers who screwed up. Almost everyone gives lip service to the need to care for psychologically injured soldiers. It is the politically correct position to take as the media blasts story after story and alleged scandal after scandal. We all agree that if we have even one soldier with psychological problems we should care for them and get them what they need. But for the underserved population of National Guard soldiers and airman, it does not happen with any regularity. Basically, battle rhythm is a routine or the way things continue to go. The battle rhythm in this case is to make noises about care, and then to deny the existence of the psychological injuries. These are psychological injuries that we have seen since the Army and the military of the United States began. Further, the rhythm is to make it not-all-right to seek help, and then to look sideways at those who do ask for what they need. For whatever reasons, the military looks like it wants to do the right thing. Stress control units on the battlefield, professionals sent forward and a lot of developmental time and money spent…and those who need the care when they come home are still not getting it. The best way to lose a high level status in the military is to admit to psychological problems. Whether this is really true or not is a different story. But this seems to be the prevalent belief among those who are front line candidates for services for such conditions and ailments. Such perceptions form the reality of these matters for many soldiers, and little has been done to effectively alter these perceptions. Perceptions cannot be changed by willing them to change. Behavior change may ultimately affect the nature of perceptions. But only if the behavior change is real, consistent and pervasive. At least this is a starting point (Nelson, 2007).

Historical Data in Support of This Paper

As any opening exemplar, Texas National Guard soldiers are in distress and at risk due to psychological injuries just as, if not more, than are their Active and Reserve counterparts (Panel Report to the Adjutant General of the State of Texas, June, 21, 2007). This is consistent with findings of Army COL Carl Castro, Research Psychologist who said, "At no time in our military history have soldiers or Marines been required to serve on the front line in

any war for a period of six to seven months, let alone a year, without a significant break in order to recover from the physical, psychological and emotional demands." (www.airforcetimes.com/news/2007/06; Department of Defense Task Force on Mental Health, 2007).

Additional, non-exhaustive, documentation in support of the need for clearly defined and lasting behavioral health care for our troops include the following:

2004, July, New England Journal of Medicine, For Iraq and Afghanistan, found that 5 to 9.4% (depending on the strictness of the Post Traumatic Stress Disorder definition used) suffered from post traumatic stress disorder (PTSD) before deployment. After deployment 6.2 to 19.9% suffered from PTSD. For the broad definition of PTSD, that represents an increase of 10.5% (19.9 - 9.4% = 10.5%). That is 10,500 additional cases of PTSD for every 100,000 U.S. troops after they have served in Iraq.

2005, October, USA Today, "More than one in four U.S. troops have come home from the Iraq war with health problems that require medical or mental health treatment. This was according to the Pentagon's first detailed screening of service members leaving a war zone."

2006, Walter Reed Medical Center concluded that 62% of their patients had brain injuries.

2006, August, Christian Science Monitor, "Because of new body armor and advances in military medicine, for example, the ratio of combat-zone deaths to those wounded has dropped from 24 % in Vietnam to 13 % in Iraq and Afghanistan. In other words, the numbers of those killed as a percentage of overall casualties is lower." An implication could be that more are surviving and coming home in need of care.

2007, February, Discover Magazine, Titled "Dead Men Walking. What sort of future do brain-injured Iraq veterans face?," reports: "One expert from the Veteran's Administration estimates the number of undiagnosed Traumatic Brain Injuries at over 7,500. Nearly 2,000 brain-injured soldiers have already received some level of care."

2007, 500 troops had undergone major amputations. This implies both medical and mental health needs for these personnel and for their families.

2007, USA Today, In November, Reported at least 20,000 U.S. troops who were not classified as wounded during combat in Iraq and Afghanistan have been found with signs of brain injuries, according to military and veterans records compiled. The data, provided by the Army, Navy and Department of Veteran's Affairs, show that about five times as many troops sustained brain trauma as the 4,471 officially listed by the Pentagon through Sept. 30. These cases also are not reflected in the Pentagon's official tally of wounded, which stands at 30,327.

2007, March 12, *Time* Magazine article reported on a study published in the *Archives of Internal Medicine.* About one third of the 103,788 veterans returning from the Iraq and Afghanistan wars seen at Veteran's Affairs facilities between September 30, 2001 and September 30, 2005 were diagnosed with mental illness or a psycho-social disorder, such as homelessness and marital problems, including domestic violence. More than half of those diagnosed, 56% were suffering from more than one disorder. The most common combination

was post-traumatic stress disorder and depression.

11 June 2007, CNN.com. Study: Suicide risk double among male U.S. veterans. The study by Dr. Mark S. Kaplan, Professor, Portland State University and published in the Journal of Epidemiology and Community Health indicated that Male U.S. Veterans are twice as likely as non-vets to die by suicide. At biggest risk were white, college-educated and those with activity-limitations. 300,000 men were followed in this study for 12 years.

15 June 2007, the Associated Press. According to COL Elspeth Ritchie, Psychiatry consultant to the Army Surgeon General indicated the following: "Overwhelmed by the number of soldiers returning from war with mental problems, the Army is planning to increase its ranks of psychiatrists and other medical workers by more than 25 %. A contract completed this week but not yet announced calls for spending $33 million to add about 200 psychiatrists, psychologists and social workers to help soldiers with post traumatic stress disorder and other mental health needs. As the war has gone on, PTSD and other psychological effects of war have increased."

A report by the Department of Defense Mental Health Task Force says the problems are even deeper. Providers of mental health care are, "not sufficiently accessible" to service members and are inadequately trained, it says, and evidence-based treatments are not used. The Task Force recommends an overhaul of the military's mental health system, according to a draft of the report.

Based on professional literature regarding combat stress and its effects on mental health, military history, and the professional experience of the Panel convened by the Texas Adjutant General and made up of Behavioral Health Officers of the Texas State Guard Medical Brigade, it was found that soldiers tend to under-report these types of injuries. This, in part, is due to fear of adverse responses from their chain of command. Therefore, it is logical to expect that Texas National Guard soldiers are reluctant to report psychological injuries. This panel believed that the numbers reported in this survey are less than the actual numbers.

The salient portions of the report by the Texas State Guard Medical Brigade Behavioral Health Officers are shown as follows:

1. A panel of three mental health professionals reviewed the data collection methods, techniques and tools to validate the basic hypothesis that the National Guard has soldiers in distress and at risk. The panel was assigned to:

    a. Validate the findings, or
    b. Invalidate the findings of the data, and
    c. Provide possible courses of action for follow-up or reassessment.

2. Provide contingency planning for possible TXSG Medical Brigade missions based on the findings in #1 above, concerning telephonic follow-ups of individuals at risk, one on one counseling, and possible team deployment to those armories and wings that are at high risk.

Background:

A post deployment mental health survey was conducted on 1300 Operation Iraqi Freedom (OIF) Texas Army National Guard Soldiers. There were approximately 20,000 Texas Army and Air National Guard troops of which approximately 10,000 had been deployed in OIF. The survey conducted by the Officer in Charge, Behavioral Health Department, identified multiple psychological traumas linked to exposure to combat, which is compatible with Army medical history since the American Revolution.

A panel of mental health experts from the Texas State Guard Medical Brigade (MRC) was directed by the Texas Military Forces, Joint State Surgeon, to conduct an examination and evaluation of the survey and to answer the specific questions noted in #1 and #2 above. The examination and evaluation were conducted on 19-21 June 2007, Building 8, Camp Mabry, Texas.

Facts Assessment:

1. Interviews with the Army National Guard Behavioral Health Officer in Charge clarified issues for the panel.
2. Evaluated the availability of services in the various units.
3. Reviewed the Survey form.
4. Reviewed individual soldier comments.
5. Discussed the possible use of the TXSG Medical Brigade Behavioral Health personnel.
6. Reviewed parallel tracks that might be available for service delivery.
7. Discussed treatment options.
8. Discussed information and referral options.
9. Reviewed the need for additional full-time Behavioral Health staffing from the Texas State Guard Medical Brigade.
10. Reviewed confidentiality issues vs. need to know.
11. Discussed ethical, practice and legal issues related to service delivery.
12. Reviewed historical data related to behavioral health issues.
13. Reviewed current literature concerning combat-related psychological injuries.

Findings

1. The survey conducted by the Behavioral Health Officer in Charge did identify that National Guard soldiers are in distress and at risk due to psychological injuries. Based on professional literature regarding combat stress and its effects on mental health, military history, and our professional experience, this indicates that soldiers tend to under-report these types of injuries. This, in part, is due to fear of adverse responses from their chain of command. Therefore, it is logical to find that National Guard soldiers are reluctant to report. This panel believes that the reported numbers of psychological injuries is less than actual numbers.
2. The panel found that these psychological injuries are identifiable and treatable given the resources to do so. Additionally, that these soldiers were retainable and valuable for future combat.

3. The sooner that referral and treatment are provided the greater the likelihood of retention. It should be noted that psychological injuries and diagnoses are not necessarily career-ending.
4. Behavioral Health services were not currently available at the small unit level.
5. While very useful in the pilot project, the Post Deployment Survey needed some modification to increase its usefulness.
6. The Texas State Guard Medical Brigade Behavioral Health personnel can be useful in attacking and ameliorating the behavioral health problems identified by the survey.
7. The Texas Military Forces, including the Army and Air Guard, were not adequately staffed to respond effectively to a problem of this magnitude.
8. Confidentiality were a paramount and primary consideration for the success of any behavioral health program.
9. Current behavioral health referral systems were inadequate to provide effective and timely services.

Recommendations specifically concerning the TXSG Medical Brigade and its Behavioral Health Service Officers.

These recommendations were not to be considered commitments of the TXSG Medical Brigade to act or to provide services. The details of such acts or provision of services must be confirmed separately and were not part of this document:

1. Preventative mental health education at the unit level to at least all NCO's and Junior Officers. The concept specified was to intervene with the soldier within his or her unit.
2. Information about and assessment and referral of soldiers in need of mental health care for issues identified through the survey.
3. Utilize Medical Brigade Behavioral Health providers on State Active Duty to treat soldiers as assigned to local armories as needed and practical.
4. The Medical Brigade Mental Health personnel would actively seek to identify and refer seriously mentally ill soldiers ie. danger to self or others.
5. Provide post deployment reintegration and re-socialization training.
6. Provide State Active Duty pay and allowances for Medical Brigade Behavioral Health Service personnel being utilized.
7. Other behavioral health duties as determined by the Officer in Charge, Behavioral Health Services and the TXSG Medical Brigade.
8. As requested by the Battalion Commander, attend all "M" Day drills.
9. As requested, provide family readiness briefings.
10. Improve the design and utility of the pilot behavioral health survey to increase collection of additional relevant information.

Overall Recommendations:

1. Gain 100% support from command concerning pre and post deployment behavioral health issues, confidentiality of information and exceptions to confidentiality.
2. Provide patient information to command on a "need to know" basis.
3. Bring to active duty, contract, AGR, and / or technician behavioral health personnel.
4. Create a Behavioral Health team with Noncommissioned Officers and Psychological Technicians in all Regiments.

5. Mental Health Team Noncommissioned Officers and Psychological Technicians will participate in family readiness and support issues (e.g., employer – Guard issues, pre and post deployment and during mission).
6. Pre and Post Deployment Behavioral Health Survey of soldiers and airmen in order to establish baseline information.

(Panel Report to the Adjutant General of the State of Texas Reference the Post Deployment Mental Health Survey for the Texas Army National Guard, June 2007; BUMED, 2006; Enhanced Post-Deployment Health Assessment, 2008)

CNN, June 15, 2007, “Pentagon: Military’s Mental Health care needs help,” reported that mental health services may need some therapy of its own.

"The military health system lacks the fiscal resources and the fully trained personnel to fulfill its mission to support psychological health in peacetime or fulfill the enhanced requirements imposed during times of conflict," according to "An Achievable Vision." Here are some of the findings:

A stigma attached to mental health problems among service members "remains pervasive and often prevents service members from seeking needed care."

"Existing processes for psychological assessment are insufficient to overcome the stigma inherent in seeking mental health services."

"Mental health professionals are not sufficiently accessible to service members."

"Leaders, family members, and medical personnel are insufficiently trained in matters relating to psychological health."

"Some Department of Defense policies, including those related to command notification or self-disclosure of psychological health issues, are overly conservative."

"Significant gaps in the continuum of care for psychological health remain, specifically related to which services are offered, where services are offered, and who receives services."

"Family members have difficulty obtaining adequate mental health treatment."

The military lacks "enough fiscal or personnel resources to adequately support" psychological help of service members and their families.

Military treatment facilities don't "provide a full continuum of psychological health care services for active duty service members and their families."

The number of active duty mental health professionals is insufficient and likely to decrease without substantial intervention.

The network benefit addressing psychological health "is hindered by fragmented rules and policies, inadequate oversight, and insufficient reimbursement."

Additionally, it was reported in this same article that part of solving deficiencies in the military mental health system is to, “dispel the biases against mental health, making professionals accessible and embedding psychological health training throughout military life.”

Policies must be changed, the report goes on, to advance the current knowledge in the field of Psychology. “Psychological assessment procedures must be viewed by all as effective, efficient, and as a normal part of military life, and ensuring that the military health network's provisions fulfill beneficiaries' mental health needs."

The report also indicated that high levels of combat were related to personnel reports of anxiety, depression and acute stress. Soldiers who were deployed multiple times or deployed longer than six months were more likely to show positive for mental health issues when screened.

According to a report by CNN on 25 November 2007, Broken Government: Waging War on the VA, hosted by Dr. Sanja Gupta, 250,000 soldiers are currently receiving benefits from the Veterans Administration for Post Traumatic Stress Disorder as a result of current warfare. This is true even though the VA is having a difficult time determining who actually has PTSD and who does not.

2008, March, A top Army psychiatrist, Colonel Charles Hoge, told Congress that nearly 30% of troops on their third deployment suffer from serious mental health problems, and that one year was not enough time between combat tours.

2008, January, The U.S. Army reported that the rate of suicide among soldiers in 2007 was the highest since the Army started counting in 1980. There were 121 suicides in 2007, which is a 20% jump over the prior year. Also, there were around 2100 attempted suicides and self-injuries in 2007.

2008, January, The U.S. Army reported that the rate of suicide among soldiers in 2007 was the highest since the Army started counting in 1980. There were 121 suicides in 2007, which is a 20% jump over the prior year. Also, there were around 2100 attempted suicides and self-injuries in 2007.

2008, Time Magazine reported that data contained in the Army's Fifth Mental Health Advisory Team report indicate that, according to an anonymous survey of U.S. troops taken last fall, about 12% of combat troops in Iraq and 17% of those in Afghanistan are taking prescription antidepressants or sleeping pills to help them cope. About a third of soldiers in Afghanistan and Iraq say they cannot see a mental-health professional when they need to. When the number of troops in Iraq surged by 30,000 last year, the number of Army mental-health workers remained the same — about 200 — making counseling and care even tougher to get.

In the same article, Time also reported on some of the reasons for the prescription drug use: That imbalance between seeing the price of war up close and yet not feeling able to do much about it, the survey suggests, contributes to feelings of "intense fear, helplessness or horror" that plant the seeds of mental distress. "A friend was liquefied in the driver's position on a tank, and I saw everything," was a typical comment. Another: "A huge f_____ bomb blew

my friend's head off like 50 meters from me." Such indelible scenes — and wondering when and where the next one will happen — are driving thousands of soldiers to take antidepressants, military psychiatrists say.

2009, USA Today, For Iraq and Afghanistan, Reported that according to a Pentagon estimate, as many as 360,000 U.S. veterans of the Iraq and Afghanistan conflicts may have suffered Traumatic Brain Injuries, including 45,000 to 90,000 veterans with persistent symptoms requiring specialized care.

14 April 2009, Fort Worth Star Telegram, reporter Chris Vaughn said those at one of the largest Army posts in the United States have some significant ongoing concerns.

Lieutenant General Rick Lynch, who is in command of Fort Hood, Texas and the U.S. Army III Armored Corps is concerned that the Army could reach its breaking point because Army families are reaching their breaking point due to multiple deployments and the pressing issues of mental health and readjustment from war. He has soldiers and families with post deployment needs to be met, and he cannot find those to provide the needed and extensive care. LTG Lynch said:

> "The No. 1 issue I'm wrestling with right now is access to mental-health care. I am short 25 % of the psychiatrists, psychologists, nurses and social workers that I need. That means soldiers who want appointments must wait longer than I would like. I am so disappointed with the lack of mental-health providers on this installation. We have the money to pay for the providers, but we can't get them to come to Fort Hood." ... "I make it clear to commanders and young soldiers that getting mental-health help is not a weakness. I've cried more in the last two years than I've cried my entire adult life. You can't experience what we've experienced with the deployments and combat operations without being affected emotionally. I tell them I've been affected and I'm seeking help and if they're affected, they should seek help too."

The Legislative update of the Military Officers Association of America (MOAA), dated 1 May 2009, reveals that a meeting of the Armed Services and Veterans Affairs committees of both legislative chambers reveals that many problems still exist in giving proper care and assistance to our wounded warriors.

A spouse of a wounded soldier said, "They, the DoD and the VA, don't tell you about the process; you just have to stumble on the information and care." A warrior remarked, "Care continues to be a confusing maze of massive bureaucracies." A mother of a wounded warrior stated that families are desperate for information, but would rather get counsel from other wounded families instead of the DoD or VA. Many of those wounded families agreed with the DoD and VA testimony that things may be improving. They followed this by saying that they believed that the government is nowhere close to being able to deliver seamless care and transition services. This is still true many years after the beginning of the current wars and is similar to the inadequate way things were handled in previous conflicts and wars.

The MOAA said the following: "MOAA is encouraged by the much-improved collaboration and cooperation between the DoD and VA secretaries, but believes far more

needs to be done. And, the first requirement is permanent statutory authority for a joint DoD/VA transition office staffed by senior, full-time DoD, service and VA personnel with responsibility and authority to develop joint policies, programs, new initiatives and oversight of the entire transition process from start to finish. There are still too many disconnects between the services, DoD and VA, too little authority vested in a temporary joint office, too little emphasis on funding and staffing some of the joint activities, even for such basic things as offices and phones in some cases."

The Military Officers Association of America Legislative Report goes on to comment that there seems to be far too many cases of wounded warriors and their families having real and instant problems, and those charged with the responsibility of helping saying that the fix for the problems is really someone else's responsibility. Not only is it someone else's responsibility but that also:

> "Someone else isn't doing their part, or arguing over which agency and which committee is going to pay for what. Working on solutions for 3 to 5 years down the road is fine, but far more close collaboration is essential to get real help to real people who needed it yesterday." ... "Additionally, there are still too many significant breakdowns in records, care, compensation, benefits, caregiver support, and information once the wounded warrior and his or her family leave active duty."

CNN.com (May 12, 2009). Repeat deployments put strain on troops, veteran says. According to Paul Rieckhoff, Executive Director of Iraq and Afghanistan Veterans of America, "You don't just deploy a soldier, you deploy an entire family. So, you have mothers, brothers, husbands, wives back home who are extremely concerned. They're dealing with a tough economy. All that goes into the stress of the deployed soldier, who has already got enough to worry about in combat"

Soldiers, Spouses, Children: A comprehensive, well-thought-out, ongoing program.

If we are to be helpful, we must be effective (Rosenbluh, 1970). Effectiveness is directly related to how well thought-out and comprehensive is such a behavioral health program. There seem to be several tendencies. One is to establish multiple programs each with its well-protected program and funding source. Where the money is, the program develops. And then, it become proprietary in nature and does not always play well with others who may be trying to provide services also. Everyone is "doing their own thing," and claiming great success in order to re-secure next year's money. Some good is done; much is not. No one organization or program can do all that is needed regardless of the public relations expended. Another tendency is to continue to analyze and study what we already know and have known for a long time. We have a problem in the military with untreated psychological, combat-related, combat exposure injuries and with suicide at unacceptably high levels. We know that resources are not adequate. We know that throwing money at the problem will usually not work. And, yet, we continue to study and to not provide. And, then, to top it off, we under-fund behavioral health staffs and make them justify their own existence time after time rather than giving them what they need to do the job we all know has to be done. And, who suffers?

Pre-deployment services.

Baseline information.

There must be a way to obtain this information. Difficult? Perhaps. Impossible? Not likely. But, we have to figure out how to do it. We make assumptions about those to be deployed. Usually, we are correct. Sometimes we are not. The utilization of pre-deployment mental health surveys to obtain baseline information on the mental stability and functioning of deploying soldiers might be a start. We know that some will fake physical and psychological ailments to avoid deployment. Some actually have physical and psychological ailments that should prevent their deployment; at least until these conditions are examined and rectified (USA Today, March 23, 2009). The job of this pre-deployment triage falls to the skill and training of the behavioral health professionals entrusted with this job. It is do-able. Establishing baseline information on all deploying troops might help validate the post deployment surveys that are now being conducted (NMCSD, 2007; Tanielian and Jaycox, 2008; Veterans Affairs, 2007).

Services during deployments.

Psychological services for troops during deployment are reportedly available and local. What is available back home during these times, and contacts with psychological resources back home seem to vary widely. Training of peer support teams within units and within Family Readiness Groups could go a long way when troops are deployed. Such teams would be valuable pre and post deployment also. Adequacy of current training in this area is an issue in this author's opinion. Training should be conducted by competent crisis intervener trainers and adapted to the specific situations into which these peer support members might find themselves when helping other service members. Probably, forty hours of practical training in crisis intervention followed by periodic retraining would be adequate. Proper and available behavioral health backup should be available to peer support members. Command buy-in and a strict policy of peer support – service member confidentiality is an important requirement for this endeavor and is supported by federal law. (Jaffee v. Redmond, 518 U.S. 1 (1996), et al. See below).

Computer contact by deployed troops with their previous psychological contacts should be expanded and encouraged. This author's contact with deploying and deployed soldiers indicates that this is a utilized methodology when available. An effective peer support program, combined with the necessary behavioral health / psychological backup would round out this overall program.

Post-deployment services.

Reporting psychological injuries versus those injuries not reported.

A different operational tempo needs to be enacted for different, although related, groups of soldiers. Having soldiers in one place, and needing help, is a different situation altogether than having returning troops spread out in armories across the various states. These issues are mounting, and are, as yet, unaddressed and unheeded. The approach to active duty soldiers is necessarily different than the needed approach to National Guard

troops. Improvement can certainly be made to the services provided to active troops. Something needs to be done to insure services to Guardsmen and Reserves spread throughout the country in remote cities and armories. A review of the historical data provided in this manuscript makes clear the areas of concern and intimates what must be done to ameliorate them (NMCSD, 2007; Tanielian and Jaycox, 2008; Veterans Affairs, 2007).

Command buy-in

1. Confidentiality. There is a reason why laws exist that protect confidentiality under certain circumstances including mental health. To expect those who need help to voluntarily come forward, without the protections that provide that what they reveal will not be reported or used adversely, is unrealistic. It is not consistent with, or encouraging of, a true therapeutic relationship where real benefit can be obtained It is also not realistic to expect a soldier ordered by their commander to reveal that which is confidential, not to do so. The problems compound from here.

2. Exceptions to confidentiality. These are related to a commander's need-to-know. The exceptions generally include a threat to self, elder abuse, child abuse, and in some states a threat to others.

3. Need-to-know. Commanders, at all levels, have a need to know what psychological injuries a soldier may have, but only under certain conditions. Commanders want to know, and should know, about anything that might affect mission readiness and deploy ability. Further, they must attempt to build a mutual trust between them and their behavioral health personnel so that both understand and adhere to this process and interact with each other appropriately to the benefit of all concerned. It can be done, and in some instances it has been done. The process must be transparent to all. In this author's experience, knowledge of the rules of engagement regarding mental health issues is not the problem for most. The problem exists only if the rules are changed subsequent to their implementation. Most can live with the rules and the exceptions regarding treatment. However, they want some assurance that the rules agreed to will not change "in mid stream."

4. Acceptance that psychological injuries are treatable, curable, and not career ending.

5. Command education.

6. Senior command issues. Some of those making current high level decisions are those who are of the age that generally do not understand or in some cases even believe, in the presence of psychological injuries that might be related to combat exposure. These may be the group that might say, "If you can't stand the heat, stay out of the kitchen." This has never been a helpful attitude and it continues to produce non-productivity. Soldiers must believe that it is okay to ask for the help that they need. And, if they do, that they will be regarded and treated just as if they had a legitimate physical injury. Probably, no soldier with a physical injury has ever been regarded as in the above quote. Just because we cannot see the injury does not mean that it does not exist. [(Jaffee v. Redmond, 518 U.S. 1 (1996); U.S.C. § 7904 (requiring that the head of each Executive agency establish an EAP for that agency); Fla. Stat. Ann. §§ 110.1091 &

125.585; Me. Rev. St. Ann. tit. 5 § 957 (West 1999); N.H. Rev. Stat. Ann. § 21-I:52-a (2000); Mass. Gen. L. Ann. ch. 7 § 28B (West 2000); Minn. Stat. Ann. § 43A.319 (West 2000); N.Y.Mental Hygiene Law § 41.54 (McKinney 2000); N.D. Cent. Code § 44-04-18.1 (1999); Okla. Stat. tit. 74 § 840-2.10 (2000); Wash. Rev. Code Ann. § 41.04.700 (West 2000)].

Referral availabilities.

If a soldier needs help when they return, can they obtain it? Maybe. But, can they get it quickly, conveniently, in their area of the country, by competent providers, and without cost to them? Magnify this concern when talking about these services for National Guard soldiers. Not concentrated on one post, they are often and routinely located all across the state in which they live. Many cannot take extensive time off to go for care. Job demands, home life, finances, child issues all contribute to the likelihood or unlikelihood that needed services will be obtained even if desired. Additionally, National Guard and Reserve units come together perhaps only once a month and personnel may have to travel long distances to attend drill. Professional access to these soldiers may be a problem, and their access to close-in professional referral sources may also be problematic.

Alternative referral and treatment sources.

Can treatment be provided for National Guard and Reserve soldiers during monthly drills? Should assistance at monthly drills be limited to information and referral? What about Doctor-Patient relationships and responsibilities? Can soldiers have access to their armory throughout the month where treatment is available? Would it help to bring in therapists to be located at the various armories? Maybe to all of the above. So now, what? Referral services in their own communities, without wait time and without cost, could go a long way in this direction. Numbers to call and governmental treatment facilities at a distance, and long delays in obtaining a referral are not the answer. While these will work for some, there is probably a large contingent for whom this will not work, and for many or all of the reasons mentioned above. In this author's opinion, a comprehensive program that finds ways to bring the services needed to the soldiers who need it, and to do this where they live, could be a productive expenditure of money and time. There are probably many well trained mental health professionals in multiple communities who could provide needed services and do it quickly. They would have to be screened for receptivity and experience in dealing with soldiers, and paid a fair rate for their time and expertise. Their payments for services should be expedited and not delayed because of bureaucratic red tape. One requirement might include a speedy response when this particular group of veterans asks for help. Flexibility on the part of the therapists would be an important factor.

A personal conversation and reflection

This author had the opportunity to spend some quality time with a veteran National Guardsman of several wars who was about deploy again, hopefully for the last time. His first war was Vietnam. Now, he was headed for Iraq. Our paths crossed and we seemed to relate easily. Maybe it was the age similarity. He had the range of perspective that lent itself to a discussion of changing mental health practices in the military. He had seen the same range

that this author had seen, but from a different vantage point. We spoke of the current needs for providing help for our current returnees.

We discussed today's soldiers in terms of their greater sophistication regarding psychology and related disorders; greater than their predecessors. He noted that there were still many concerns about asking for help or admitting that a personal problem exists, but less so than in earlier wars. He mentioned that his commanding officer proposed a well-accepted program in his current unit that gets help immediately to soldiers, provides for an initial one-on-one evaluation interview, insures confidentiality, and then allows for ongoing contact with a mental health professional on an as-needed basis. He seemed pleased, and he expressed less concerns than he had experienced about such matters during previous conflicts and deployments. He is a noncommissioned officer and related much of this about the soldiers for whom he was responsible.

The issues' surrounding the use of military behavioral health personnel, versus civilian mental health professionals, was discussed in some detail. His unit was involved in a program wherein several of his unit members were trained by civilian consultants in crisis intervention procedures for use with other soldiers. Subsequently, contact with the civilians was maintained electronically on an as-needed basis. This electronic contact extended to the family members of the soldier, and all contacts could be done before, during and after deployment for all involved. The issue of support for the trained crisis interveners within the unit was not discussed.

We discussed the benefits and problems encountered if uniformed, military mental health professionals we utilized independent of the civilian contractors or instead of them. The major issue raised by this NCO was that of confidentiality. It was felt that a uniformed mental health professional might find it more difficult to maintain confidentiality if ordered to do otherwise by a commander or other superior officer. At least this was a concern that was experienced when this writer introduced the consideration of these alternatives. It was admitted that a lot would still be related to command buy-in to the procedures and their acceptance of the principles of, "need-to-know." In some ways, it was felt that the perception of the troops would be that a civilian mental health provider contractor would be less susceptible to the dictates of commanding officers if faced with the dilemma of revealing confidential information. It was felt that soldiers might be a little more resistant to coming forward regardless of the reality of the process. This author's experience lends itself to a slightly different perspective. While the civilian contractor my not have, or even be prohibited from having, contact with the commanding officer, even governmental contracted programs may prevent the civilian consultant from doing due diligence to assist a particular soldier or family member. Additionally, the contractor may not be allowed to reveal "need-to-know" information to commanders when such information is presented by the soldier and is an exception to the usual laws regarding confidentiality.

It was revealed in this discussion that in this soldier's opinion, approximately 90 % of the soldiers in his unit would seek out behavioral health care under the program now in place and that many have already done so. The pervasive belief was that it was okay with command to do so, and that repercussions were unlikely. He went on to point out that he already understood that certain unusually serious matters would have to be reported, such as suicidal ideas, and that this was accepted by most. It certainly could be that the soldier of today may

be more receptive to psychological care and to seeking it when needed. The variables continue to be assurance of confidentiality, command buy-in, the career-ending nature of admitting mental health problems, and the perceptions of the susceptibility to pressures on the part of those providing behavioral health care. None of this is inconsistent with the overall premise here. However, it does inform the basis for some reflection by this writer.

Conclusions

It seems so obvious. Stop talking and start doing. Stop denying the reality of psychological and combat-related mental injuries and give these injuries parity with physical injuries. Parity in the way we regard them; parity in the way we acknowledge them; parity in the way we commit resources to them; and parity in the way we actually care for their injuries both large and small. And, above all, parity in the way that we guarantee return to duty for those able just as we would with physical injuries.

> Perhaps President Abraham Lincoln said it best when he instructed us that we are, – "To care for him who shall have borne the battle and for his widow and his orphan."
>
> And, the aphorist George Santayana concluded that, "Those who cannot remember the past are condemned to repeat it,"

We send them into harm's way to do that which we ask them to do. And they go and they do. This author recently returned from the Uniformed Services University for the Health Sciences, the National Naval Hospital and Walter Reed Army Medical Center. There, they care for those who go into harm's way and come back with the physical and emotional scars to show for it. These are our children, our neighbors, and our community. And we must be ready as a community, military and civilian, to accept them back into our hearts and minds and to take care of them and help them and their families to become reestablished. Many of these are 19, 20, 25 year olds. Eighty percent are younger than 35. We must care for them now and be prepared as a community to care for them for the next 40 or 50 years if they need our help. They are ours and we are theirs. We owe them and must not fail them; just as they did not fail us. We must be there for them as a community in the many ways that they may need us.

Rabbi Tarfon, in the Pirket Avot, The Sayings of the Fathers, noted that, "It is not your responsibility to finish the work of perfecting the world, but you are not free to desist from it either."

And finally, Rabbi Hillel admonished, "And if not now, when?"

We have much work to do and we cannot wait much longer to do it. The military has never really been very good in this area. Maybe this generation of soldiers and of leaders will start the reverse trend. Many soldiers, and their families, will certainly appreciate having their loved ones back with them psychologically just as sure as they would have them back if suffering from a physical injury or illness.

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A PROPOSED STRUCTURE FOR TODAY'S STATE DEFENSE FORCE

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INTRODUCTION

The Threat

We Americans are in the midst of a worldwide pernicious terrorist war of subjugation or elimination. This war is as much social and fear driven as it is political and economic. Every day there are terrorist groups killing and destroying to demonstrate that what we believe, what we stand for, is of no value. The health and well being of our citizens are in danger of biological, chemical and even "dirty" nuclear weapons as well as pre-placed and "walk-in" explosive devices; our critical infrastructure is vulnerable to all forms of interruption and destruction by external attack and by "insiders" (Hershkowitz, October 2006; Hershkowitz, 2007). The United States is the epicenter of this hatred by the terrorists and political entities that support terrorist activities. Herein lies the mandate for an integrated homeland security effort. In order to protect our beliefs, our way of life, our families, we must secure our homeland, protect our citizenry and infrastructure.

Limited federal military and civil support is currently being augmented from such state and municipal agencies and organizations as the State Police, state health agencies, municipal police, hospitals and local physicians, and those remaining National Guard units not selected for military duty elsewhere. This homeland security force is not sufficiently adequate to provide security for our borders, critical infrastructure, critical material logistics depots, buildings, etc., and it will further create other delivery of services problems when those programs are stripped to staff the homeland security mission(s). This results in the reduced State Police and local police presence, the lack of medical staff at the hospitals, and the need for the National Guard to perform vital federal military missions.

Complications to Mitigating the Threat

There is an ongoing round of finger pointing in and out of the federal government, as reported in the media, that the nation and the states are not taking Counter Terrorism Operations seriously and they are not preparing for it. It is common knowledge that the nation was not prepared for Pearl Harbor; it was not prepared for the first attack on the World Trade Center (WTC), nor was it prepared for the subsequent attacks of 9-11 on the WTC and the Pentagon. What will it take to move us from business as usual to a point of realization that we must prepare now? It is also commonly noted that the question of a terrorist attack is not a case of if, but rather when. The threat is not coming, it is here, what is coming is another attack.

For the foreseeable future, National Guard (NG) troops will continue to be heavily committed for federal missions abroad and at home (Atkeson and McCoskey, 2004). Anytime

they are so employed, they are unavailable to the Governor for state missions. Simultaneously, the Active Duty and Reserve Forces of the United States, to include the NG, continue to undergo an intense reorganization. This includes an assumption of an increasingly active role in homeland security (HS). NG units are pressed to respond to overseas deployments, increased taskings for HS missions, as well as emergencies at home caused by natural disasters. To consider the use of the NG to counter terrorism is further complicated by the Posse Comitatus Act and the Insurrection Act (Brinkerhoff, 2008).

The states will likely continue under tight budget restraints, but needs and pressures will also increase. Under conditions of the current War on Terrorism and repeated weather related disasters, states should give more attention to a volunteer military organization that is already authorized under the United States Code Title 32 (32 U.S.C., § 109, 1956), NG Regulation (National Guard Regulation 10-4, 1987) and State Military Department legislation. This volunteer military organization, part of the State Military Department, is typically known as the State Defense Force (SDF); however, it can also be called the State Guard, the State Military Reserve or the State Guard Reserve. Properly prepared, the SDF can be a suitable reserve force for the NG and a force multiplier for HS and disaster mitigation needs (Bankus, 2005; Bankus, SDFMS 2006; Brinkerhoff, 2001; Brinkerhoff, 2008; Coulombe, 2003; Department of Defense, 2005; Hershkowitz and Wardell, 2005; Hooker, 2003-2004; Kennedy, 2003; Nelson, 1995; Phillips, n.d.; Robinson, 2002; Tulak, Kraft ans Silbaugh, 2005).

A PROPOSED STRUCTURE

Limitations

There are at last count 22 active SDF units; thus, 28 states and all territories other than Puerto Rico do not have one. Of the 22 active units, several of those are active on paper only. Reasons for not creating or supporting a viable SDF program are likely based in part on past history and internal considerations

A number of successful TAGs have addressed perceived limitations of the SDF by building on the strength of the SDF program concept and the needs of its military department. Their approach is to use the extremely low cost of a talented volunteer military for a potential high service return by recruiting professionals and specialists through selective recruiting and rigorous training.

The NG's homeland defense/security missions and the SDF's strengths were analyzed, an area was selected and a SDF component was established to meet that need. The approach was then presented to the NG and the impacted state agencies as a new *low cost* "State Guard" designed by their state government (i.e., the Governor and TAG) to be ready to protect the state's citizenry and support the military department if and when necessary. In hard financial times, the *extremely low cost* of the SDF, whose personnel in addition to being unpaid volunteers pay their own expenses in order to serve their state, should certainly ring a bell with voters.

The second part of this approach stressed that the SDF is based on the Cadre principal, where the SDF staff is composed of highly experienced personnel, typically of higher rank; thus, older and unfortunately somewhat overweight, some with longer hair or even facial hair.

A New View

Historically, the SDF has been viewed as light infantry and/or military police (Bankus, 2005; Bankus, 4th Quarter 2006; Brinkerhoff, 2001; Brinkerhoff, 2005; Brodhead, 2005; Sieg, 2005; Tulak, Kraft, and Silbaugh, 2005). The SDF has served in this capacity from its inception; however, this model is viewed as a relic of World War Two, Korea and the Cold War, and no longer is appropriate when faced with massive natural and terrorist caused disasters, with the single exception of sparsely populated large land masses such as Alaska and parts of the south-western U.S.

In response to this need for surge capacity, several SDF units have begun mission oriented restructuring that has demonstrated a new direction for the successful use of the SDF. Examples of this new model are their use in response to the World Trade Center catastrophe, protection of the Alaskan Pipeline, hurricane disaster mitigation and integrating the Medical Reserve Corps with the SDF (Nelson and Arday, 2006 & 2007; Benner, 2006; Colgan, Davis and Barish, 2006; Girardet, n.d. & 2008; Greenstone, 2006; Hall, 2003; Hershkowitz, Spring 2006; Price, 2006; Nelson, Barish, Smalkin, Doyle and Hershkowitz, 2006 & 2007; Wishart, 2006). This new model, as demonstrated in the existing literature, is to create needed "professional" units, such as medical support, novel field communications capability, and resource trainers all of which are backed up by line battalions. Other such units that are beginning to appear or are being planned are Judge Advocate General units in support of deployed NG troops and their families, units that provide engineering assessment of critical infrastructure vulnerability and military Chaplains.

UPGRADED AND ENHANCED SDF MISSIONS IN SUPPORT OF THE NATIONAL GUARD'S HOMELAND SECURITY MISSION

A restructured SDF, with homeland security as its driving force, could provide assistance in support of state needs. Some SDF units have already realized this and have begun to redesign their structure to provide such support. Some examples are in surge medical support (Benner, 2006; Colgan et al., 2006; Greenstone, 2006 & 2007; Hershkowitz and Nelson, 2007; Nelson et al., 2007; Nelson, 2007); in terrorist response (Hastings, 2007); in engineering (Kelm and Hershkowitz, 2007); in communications (Price, 2006); in the chaplaincy (Hershkowitz, 2007; Hershkowitz and Tenenbaum, 2008; McGuinn, 2007; Sherman, 2007); in cavalry support for search and rescue (Roberts, 2007-a); and in world-wide support of homeland defense/security (Bankus, 2007). There are such activities in SDF units other than Georgia, Maryland and Texas; however, the activities in these states are in the literature.

Although the NG's combat role in Iraq and Afghanistan may diminish in the near future, America's international enemies will not diminish over time, rather they will continue to discover suitable targets within the United States, against American military targets worldwide and against America's allies. Add to that the recent upturn in severe weather, such as tornados, once the product of the heartland and now frequenting the east coast as well, severe hurricanes and devastating floods that attack the inland and coastal waterways, and the first responders will rapidly become over burdened placing an even greater workload on the NG. Thus, a restructured SDF, away from light infantry except where the state's special needs require it, and toward homeland security needs, particularly those that the NG is expected to

undertake, including medical, engineering, financial, legal and chaplaincy is a sensible approach.

A Design for Restructuring for the Future SDF

A MISSION PORTFOLIO FOR THE RESTRUCTURED SDF

Unique to the SDF is its *military* stature as provided under United States Code (U.S.C.) Title 32 which authorizes the SDF as the state military reserve to the National Guard to mitigate threats that cannot be legally addressed by other volunteer organizations (32 U.S.C., § 109, 1956). The SDF is authorized by federal and state law to be a military force. It should be used in its role as a military unit and not in that of a civilian volunteer service organization as the unique military training and value of these assets would be wasted. This would be akin to using an armored car to deliver the morning paper. In other words, while the SDF can be used for volunteer service tasks, it makes no sense to do so and it will consume a special asset for other than its intended use.

The mission portfolio for the SDF must be carefully and continually reviewed as well as being clearly stated to drive unit training schedules and to provide direction for equipment and personnel acquisition. The specifics of a mission statement will vary from state to state based on a thorough threat analysis and upon local factors such as climate, terrain, identified needs, intended use, etc. Still, there should be a great degree of commonality between the various state SDF units. In general, the threats are:

- Disastrous weather events and the aftermaths of such events.
- Terrorist attacks against population, infrastructure and state facilities.
- Manmade and natural disasters considered as accidents.

A three phase level of preparation and response capability should be developed. This can be identified as the SDF Response Condition (REPCON). (*Note*: A REPCON term is used rather than the existing DEFCON term to avoid confusion since the SDF term would be strictly dictated by the Governor/TAG in response to a *state's perceived* needs).

SDF REPCON III: The normal peacetime Response Condition of any SDF. Units will be maintained at a Cadre and staff levels with a primary emphasis on:

- Continual mission review
- Organizational planning
- Staff exercises, communications training and administrative support.

This condition is assumed upon order of the Governor through the state TAG. Voluntary personnel strengths would not exceed 40% of the full manning level.

SDF REPCON II: The Response Condition status to be assumed when a terrorist or natural disaster threat is considered highly possible. The primary emphasis shifts to:

- A mission review based on a more specific threat
- An increase in organizational staffing
- Recall of key officers and NCOs

- Conducting limited operational exercises
- Active communications training
- Increased administrative support.

This condition is assumed upon order of the Governor through TAG. Voluntary personnel strength would not exceed 75% manning levels.

SDF REPCON I: The Response Condition to be assumed when the nation is considered to be in a state of war or under an imminent homeland security threat. The primary emphasis shifts to:

- Preparation to perform assigned missions
- Activation of all necessary organizational staff
- Communications system implementation on a 'watch' basis and activation of full administrative support.

This condition is assumed upon order of the Governor through TAG. Voluntary personnel strength is authorized to expand to 100% manning levels.

All unit personnel will remain on unpaid status until called to active service by specific state orders.

SDF units should be designed to meet current and projected needs of the state of which they serve. Since needs vary from state to state, each state must select units to meet its specific requirements. Even so, SDF units should maintain a degree of commonality such as a common rank structure, common uniforms, agreed communication procedures and communication modes, equivalent firearms training programs, etc.

The commonality effort will greatly assist in the *interoperability* between different SDF of adjoining states, the NG, and federal forces working together in the event of an area wide emergency. It will also help establish a minimum degree of standardization for all SDF units. This commonality would be spelled out in a basic Table of Distribution and Allowances (TDA), an *Agreement of Polices* document and *Memoranda of Understanding* that would be developed between various state organizations and federal forces.

A SDF STRUCTURE TO MEET THE ELEMENTS OF REPCON III THROUGH REPCON I, INCLUDING A BROAD SPECTRUM OF SUPPORT FUNCTIONS

Overall, SDF personnel would be organized and trained in several major categories of units such as:

- *Adjutant General*: Augmentation of office and administrative personnel for state use in such areas as state police, transportation department, NG Headquarters, etc. Such manpower augmentation can assist state agencies in a "surge" or 'expansion' situation.

- *Medical Regiment*: There is a need for volunteer active and retired doctors, nurses and EMT personnel to augment existing medical facilities, field hospitals and aid stations. Current full-time medical personnel can and should be used,

although many these personnel will already be serving overtime and stretched in any emergency; therefore, retired medical personnel and former military medical personnel should be recruited for SDF service; Maryland and Texas have both demonstrated that both retired and non-retired medical personnel will volunteer to deploy when a disaster occurs (Colgan, Davis and Barish, 2006; Greenstone, 2006 & 2007; Nelson, Barish, Smalkin, Doyle, and Hershkowitz, 2006 & 2007; Hershkowitz and Nelson, 2007; Nelson, 2007).

- *Internal Security*: Personnel trained to state standards can be used to perform specific security tasks, such as protection of state warehouses, locks, dams, docks, airports, fuel storage sites, pipelines, power plants, educational facilities and state office buildings. Trained Internal Security personnel would also provide traffic control augmentation in case of mass evacuations, assist in conducting Search and Rescue (SAR) missions, and provide other limited non-law enforcement missions as directed by TAG. Some units/personnel could be trained to work under state police as backup/augmentation personnel in emergencies, thus turning one state police officer or NG soldier into a 2-3 man team (Alaska, 2006; Bellisle, 2001; Campbell, 2004; Griffin and Denny, 2004; McHugh, 2006; Mitchell, 2006; Orr, 2005; Rall, 2006; Rall, n.d.; Roberts, 2007-a).

- *Engineer Corps*: Trained to perform damage assessment and reconnaissance of facilities, they can also perform risk assessment to critical infrastructure as requested by the NG and state homeland security (Kelm and Hershkowitz, 2007).

- *Aviation Unit*: Private pilots with their own aircraft can transport key personnel or critical personnel within the state as needed. They can transport mission-critical special equipment or medical supplies within the state, as needed, and they can perform SAR, critical site security, or evacuation traffic control information for state officials. In addition, Civil Air Patrol (CAP) pilots not activated under U.S.C. Title 10 (10 U.S.C., Chapter 909, 2000; 10 U.S.C., §§ 9441-9442, 2000) in support of U.S. Air Force and search and rescue (SAR) missions can be “tarmac” inducted into the SDF for this purpose as long as personal, not federal aircraft are used. There are some concerns about the use of the SDF in aviation missions having to do with mission leadership control and impact on U.S. Northern Command aviation missions (Conway,2005; Conway in Hershkowitz, Fall 2006).

- *Communications*: Trained and equipped licensed Amateur Radio operators can provide a core SDF communications program by providing local area and state wide secure voice and digital communications. Such assets use state frequencies, provide an emergency powered capability for state communications and can communicate with all frequencies used by First Responders and the NG (Price, 2006).

- *Military Police*: Such units would be created on a program designed to provide reserve state police personnel to perform in support of state police units. SDF MP personnel could assist state police units by providing troop office

administration support, communications, additional personnel to work as assistants to patrol officers, manning of roadblocks, assistance in evacuations, traffic guidance, etc. SDF MPs would be subject to intense training requirements as are community reserve police officers. State police/highway patrol personnel would help design a suitable SDF MP program.

- *Training*: These units provide Cadre for SDF recruiting as well as instruction, training and assistance in manning state military training installations if needed during times of state military department expansion (Patterson, 2006). They can provide instructors for the NG, the SDF or any state agency in need of instructor personnel.

- *Maritime-Naval Militia*: River and waterway units provide security to state locks, dams, water way traffic and power facilities (10 U.S.C., Chapter 13, 2006; Girardet, n.d. & 2008). They also provide the state with waterway reconnaissance as well as inland waterway search and rescue. Normally, U.S.C. Title 10 authorized Naval Militia (also a U.S.C. Title 32 authorized SDF when not federalized under Title 10) would perform such missions when federalized; however, those members not federalized who own their own boats can be utilized for similar SDF missions.

While types of units may be same in name or designation, the equipment and personnel composition of these units may vary widely between different regions of the country. As an example, a Search And Rescue Company (SAR Co.) in the southeastern United States might use 4x4 ATVs and 2-wheel off-road motorcycles for mobility, while in rugged Rocky Mountain or Appalachian Mountain areas of the United States, horseback mounted personnel would be a preferred choice for mobility (Roberts, 2007-a; Roberts, 2007-b). In northern states, snowmobile equipped troops would be more appropriate for SAR needs in a heavy winter environment, while in states with irregular coastlines and large rivers, shallow draft power boats might be preferred.

Small Elements or Subunits – Large Capabilities

While a variety of specialized elements or subunits have been presented under the concept that states should develop such elements as needed based on the mission, there must be a baseline of certain elements to provide a minimum of capabilities for all SDF units. Failure to establish even a small SDF unit with certain minimum basic capabilities would be a great detriment if and when that SDF discovers it needs such capabilities immediately for an emergency response. Two widely separate examples of this that have already proven their worth are the medical support team (Greenstone, 2006 & 2007; Colgan, Davis and Barish, 2006; Nelson et al., 2006 & 2007) and the Naval-Maritime unit (Girardet, n.d. & 2008).

Imagine an emergency mission in which it is suddenly determined that additional emergency medical capabilities are needed, not at a hospital or regional medical center, but for forward deployment to a disaster scene. This would be difficult to create 'on the run' since most SDF staff planners are not medically trained and do not know the special needs to support such an immediate medical effort. If, in anticipation that a local civilian medical community would not be able to cope with such an emergency, the SDF unit had obtained state certification as a SDF Medical Reserve Corps (SDF/MRC), the surge capacity provided

under that capability would enable the SDF unit to rapidly mobilize (Greenstone, 2006 & 2007; Colgan, Davis & Barish, 2006; Nelson et al., 2006 & 2007; Nelson & Arday, 2006 & 2007). If the SDF unit is not state certified as an SDF-MRC, then the SDF HQ should be staffed with a medical section consisting of at least one each physician, nurse, emergency medical technician (EMT) and Medical Service Officer (MSO) who could begin assisting in the coordination, expansion and call up of other willing medical personnel for the SDF [1]. Such personnel would know who to call, where to call and what was needed since "they speak the language." Members of such an element could also forward deploy to a medical emergency site to begin site coordination for those who would soon follow.

The same situation could be applicable to Naval-Maritime elements. A scenario such as an identified threat to state inland waterways, dams or sensitive commercial traffic could require developing an immediate expansion of patrol assets in a number of areas. A best readiness response would have been for the state to have a certified 10 U.S.C. Naval Militia already in place [2]; however, a minimum Naval-Maritime staff assigned to the SDF HQ would know how, when and with whom to coordinate should water craft support be required. They would also already know the SDF system and its chain of command, and would be prepared to enlist and integrate volunteers into the SDF in an orderly process. In short, there would be 'no loose cannon' volunteers who mean well but only compound the problem.

Coordination and agreement of employed assets in an emergency is always accomplished at the state level; however, once this is done and an agreement is reached, the actual employed assets (boots on the ground) need a point of contact that is a 'like asset' with whom working coordination can be rapidly accomplished. This means that medical to medical, air to air, naval to naval or communications to communications personnel can assist each other to get the task accomplished with a minimum of confusion, most important when SDF personnel are deployed for the mission with National Guard personnel and/or civilian First Responders. This is where a baseline of elements comes into its forte. If and when the authority is given to assist neighboring or other sister states in an emergency, such as Maryland provided to Louisiana during Hurricane Katrina (Colgan, Davis & Barish, 2006; Nelson et al., 2006 & 2007), pre-planning and pre-staffing will prove to be invaluable. The cost to the SDF is virtually zero, but the capabilities on hand will be great. Although there are no reports in the literature concerning its success or success potential, there is an approach composed of several actions that may solve this problem. The National Incident Management System (NIMS,2003) directs the Secretary of Homeland Security to develop and administer a program to coordinate Federal, State, tribal, local governments, non-governmental organizations and the private sector to work together to prevent, protect against, respond to, recover from and mitigate the effects of incidents. The Incident Command System (FEMA, 2007) allows for the integration of facilities, equipment, personnel, procedures and communications operating within a common organizational structure, enables a coordinated response among various jurisdictions and functional agencies, both public and private, and

[1] Willing medical personnel have been "tarmac inducted" into the SDF in such emergencies (Colgan, Davis & Barish, 2006; Nelson et al., 2006 & 2007).

[2] This is an unusual SDF unit consisting of 95% naval personnel who can be federalized under Title 10 and 5% Army SDF personnel who administer the unit. When not federalized, the Governor can call this unit to volunteer state active duty under Title 32; however, they cannot use federally provided equipment, but may utilize personal and/or state equipment.

establishes common processes for planning and managing resources. The Secretary of Defense tasked the U.S. Joint Forces Command to identify and make recommendations to resolve C2 Legacy System Interoperability issues (SECDEF, 2001-02). The National Guard Bureau (NGB-JFHQ, 2008) provides command and control of all National Guard forces in the state, territory and District of Columbia for the Governor (the Secretary of the Army for DC) as a joint services headquarters for national-level response efforts during contingency operations. When National Guard forces are deployed to support requests from civil authorities, a National Guard Task Force may be created under the Joint Forces Headquarters-State to maintain command and control of those forces, with small troop elements (i.e., transportation or aviation unit, or a Civil Support Team deployed to support the requests for assistance).

The size of the elements that make up this baseline organization is less important than is the fact that there are skilled personnel in place. This is not to say that only HQ elements are needed. It is up to each state's SDF HQ planners to recommend the type of elements within their SDF unit needed to best serve their state, what size such elements should be and what elements are needed as Cadre.

Baseline Elements

As previously mentioned, the needs of SDFs units vary by region. Western states will require a somewhat different organizational structure than will Southeastern states bordering the Gulf of Mexico or Midwestern states in the heartland. Still, a baseline organization is needed to ensure a commonality rather than a series of independent military organizations.

SDF units should develop and maintain at least four types of elements or subunits as a baseline for their organization and then build upon this as the threat dictates the need. In some cases, states may need a larger organization than is noted here; however, this is a recommended *minimum* as to type, size and manning.

- Medical – Preferably an in place state certified SDF/MRC Battalion, Regiment or Brigade; however, at a minimum a SDF HQ Staff Medical Officer supported by a small staff of medical and health personnel.

- Communications – SDF HQ Staff Officer (G6/J6) and a Signal Battalion or Company.

- Aviation – SDF HQ Staff Officer (Asst G3/J3 Air) and a HQ Aviation Section.

- Engineering – Preferably a Corps or Battalion level staffed to provide assistance to the NG in conducting Installation Status Reports and in performing risk assessment of critical infrastructure.

- Naval-Maritime – Preferably an in place federal and state certified Title 10/Title 32 Naval Militia; however, at a minimum a SDF HQ Staff Officer supported by a small staff of personnel with demonstrated seamanship

In any emergency, Medical, Communications and Aviation support will certainly be needed if not required. In a specific mission, whether an existing emergency or determined threat, involving state waterways or waterway facilities, the Naval-Maritime staff officer's advice

and recommendations will be vital in saving time and assets. Likewise, the SDF engineers can provide assistance involving risk assessment of critical infrastructure. These specialties can all provide needed support to the Commander and when needed, they can serve as coordinators and facilitators to help quickly expand capabilities in their areas of expertise.

SDF PERSONNEL

Much has been said about the fact that SDF personnel habitually do not meet the standards of their active and reserve force counterparts. This is true, but it need not and should not be a divisive issue. SDF troops are not designed to be comparable to combat troops of the active and reserve forces. They are in fact an augmentation to do *some* of the tasks normally done by active and reserve forces; thus, releasing professionals to do missions only they can do (Rall, 2006).

Age is often mentioned as a negative factor against some SDF troops, but with age comes a world of experience from retired military and professionals who desire to contribute to their state's security and safety (Patterson, 2006). This experience came at a cost to the federal government or industry and, in most cases, not at the expense of the state. Command should not be concerned if an operator is 62, 52, or 42 years old if he/she is operating a state wide emergency radio net passing radio traffic using encryption software that is not understood by most others? Age is not a factor if it does not prohibit personnel from accomplishing assigned tasks.

Physical capabilities are less demanding for SDF non-combat troops. In fact, for some duties, even citizens with *mild* disabilities can contribute much in specialized fields such as communications, aviation, teaching, administration, and medical support. It would be a waste to not use such professionals when and where possible (Rall, 2006).

For some SDF units, however, such as Internal Security or Naval Militia, physical taskings must be considerably higher than for most personnel. In such units, age, weight, and physical conditioning standards must be more restrictive and more stringent than for most units. This is just common sense. It is a function of good leadership to set high standards and encourage or require troops to meet such standards. If the bar is set low and troops are below par, only leadership is at fault since leadership sets the standards.

IMPLEMENTATION CONCERNS AND ISSUES:

Equipment and implementation costs should primarily be the responsibility of the individual SDF personnel with some program costs falling to the state. Examples of these are:

- Uniforms, most personal equipment and the cost of training materials will be borne by the SDF volunteer.
- Cost of personal aircraft, vehicles, boats, weapons, training and any licensing is the responsibility of the SDF volunteer.
- Training courses, training days and most travel to and from drills is the responsibility of the SDF volunteer, while in accordance with their state's SDF

legislation, a daily salary and/or a set per diem will be paid to members when and if called into full-time state service.

- Communications equipment may be provided by the SDF command or it may be provided by SDF volunteer communications personnel while SDF radio frequencies will be provided by the state. The cost of licensing is the responsibility of the SDF volunteer, unless a Department of Home Security grant can be obtained to cover these costs as well as some equipment.

- The state will provide liability coverage and workers compensation for SDF personnel during travel, training periods and any state active duty.

- Fuel for private aircraft, boats or vehicles on state assigned missions will be provided by or refunded by the state.

LEADERSHIP IS KEY

Since the SDF is built upon volunteerism, leadership must maintain a very high level of trust for its own personnel and receive that same level of trust from its citizens. An old active duty lynchpin says, "*Your Word is Your Bond*." This takes on an even stronger meaning since there are few other reasons for SDF personnel to follow their leaders. Volunteers follow those in whom they place trust and have confidence; leadership must lead by example and by deed.

Implementation of a quality SDF program can only be accomplished with a progressive and open minded approach by those in authority at the state level. The obvious organizational structure would seem to be for the SDF to be placed under the state military department and the state Adjutant General. This, however, *mandates* that the Governor appoint an Adjutant General who recognizes the value of a well organized and well trained state militia to perform disaster mitigation, anti-terrorist security and state military missions as an augmentation to the NG. Unless such a commander is appointed, there is no possibility for a credible SDF mission assignment, integrated state support or realistic use of the SDF under the state military department. Unfortunately, history and the inability of some SDF units to perform even the simplest of military missions show that there is little or no support by a number of TAGs for the training of their SDF.

In time and under *strong* leadership from the Governor and TAG most states can develop a well managed SDF that would strengthen their military departments. For example, Maryland, Texas and Georgia have all managed to achieve this (Benner, 2006; Greenstone, 2006; McGuinn, 2007; Nelson, et al., 2006 & 2007; Smalken, 2006; Tuxill, 2006); however, the current wartime situation does not provide the luxury of time to accomplish this evolution.

Another option would be to place the SDF under control of the state's Department of Homeland Security for oversight, mission planning and integration into homeland security activities. State homeland security organizations are concerned with much the same thing as are the SDF units; protection of critical infrastructure, mitigation of natural and manmade disaster, provision of surge medical capacity, aid and comfort to the citizenry during times of major stress (Hershkowitz and Wardell, 2005). There is no role conflict, no threat of competition for constrained funding or other resources and no liability concerns, so the SDF

can become a powerful operating arm for homeland security. In situations where the SDFs cannot function within a state military department, this can be a viable option.

CONCLUSION

The threat of terrorism is real and is banging on the door; the United States is the epicenter of this international hatred. Likewise, natural disasters can strike at a moment's notice. The attacks of *9-11* and the disaster of Hurricane Katrina have shown both to be true. At a time when the SDF should be growing, both within existing units and in states that do not currently have a Title 32 authorized SDF, when the SDF should be training and preparing to help its state government, too many of these units are stagnant at best or in a state of atrophy at worse, although in total fairness to many of these units it is due to politics rather than lethargy.

It makes no sense to once again respond to an attack or major catastrophe by just pointing fingers to place blame and saying what "we should have done...; how we could have prepared... ." Most citizens are not even aware of the SDF option so it is up to those who are aware to lay down the gauntlet, to challenge their TAG for meaningful missions, to challenge their legislature and Governor to support the SDF with guidance to the state Military Department and encouragement to restructure and grow into a meaningful supporter of the National Guard and homeland security." *Failure of leadership to develop the SDF asset is simply unacceptable.*

This nation was built by men and women who responded to a call to step forward in a time of need. Quality leaders risked all as they rose to the occasion. The time has come to once more move to involve the rank and file citizenry at the local and state level or this nation is destined to surely pay a heavy price. The readers should give serious thought to becoming part of the solution by actively calling for a strong SDF.

Certainly Edmund Burke said it best, "All that is necessary for evil to triumph is for good men to do nothing.

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The views expressed herein are those of the authors and do not purport to reflect the position of the Maryland Military Department, the Maryland National Guard, the Maryland Defense Force, the Alabama Military Department, the Alabama National Guard, the Alabama State Defense Force, the Indiana Military Department, the Indiana National Guard or the Indiana Guard Reserve.

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Biography Not Available

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